

VOL. XIV

UNIVERSITY COLLEGE OF
ARTS AND PURE SCIENCE

ANNOUNCEMENTS FOR
THE EIGHTY-THIRD YEAR

1914 : : 1915



LIBRARY
UNIVERSITY OF TORONTO
AT DUNDAS-GEORGIAN

CONTENTS

	<i>Page</i>
CALNDAR	3
FACULTY	4
FACULTY COMMITTEES	7
GENERAL STATEMENT	8
ADMISSION REQUIREMENTS	9
REQUIREMENTS FOR GRADUATION	24
FEES	24
BOARD AND ROOMS	25
LOAN FUNDS	26
SCHOLARSHIPS	27
PRIZES	30
FELLOWSHIPS	34
GENERAL ANNOUNCEMENTS	35
PHYSICAL TRAINING AND ATHLETIC SPORTS	38
GROUND AND BUILDINGS	39
LIBRARY AND LABORATORY FACILITIES	40
COURSE OF STUDY	42
HONORS SYSTEM	45
SPECIAL REGULATIONS 1914-15	45
MEDICAL PREPARATORY COURSE	48
COMMERCE COURSE	51
COURSES OF INSTRUCTION BY DEPARTMENTS	52
UNIVERSITY STATISTICS	72

CALENDAR 1914-1915

1914

Sept. 14-18,	Mon. to Fri.,	Entrance Examinations.
Sept. 21,	Monday,	University College opens.
Sept. 21-22,	Mon. and Tues.,	Registration for all students.
Sept. 23,	Wednesday,	Chancellor's Address to Ma- triculants.
Oct. 19,	Monday,	Founders' Day.
Nov. 3,	Tuesday,	Legal Holiday, Election Day
Nov. 26-28,	Thurs. to Sat.,	Thanksgiving Recess.
Dec. 24 to Jan. 2 (incl.)	Thurs. to Sat.,	Christmas Recess.

1915

Jan. 22-29,	Fri. to Fri.,	Term Examinations.
Feb. 1,	Monday,	Second Term begins. First Term, Feb.-Sept. Division begins.
April 1-5 (incl.)	Thurs. to Mon.,	Easter Recess.
May 28-June 4 (incl.)	Fri. to Fri.,	Term Examinations.
June 9,	Wednesday,	COMMENCEMENT.
June 7-12,	Mon. to Sat.,	Recess Feb.-Sept. Division.
June 14,	Monday,	Second Term Feb.-Sept. Di- vision begins.
Sept. 25,	Saturday,	Second Term, Feb.-Sept. Di- vision ends.

University Heights may be reached by the Broadway subway to 207th St. Station thence across University Heights bridge (ten minutes' walk); by transfer from Broadway subway at 181st St., to University Avenue trolley direct to the Campus; and from all east and west side elevated roads to Tremont Avenue, Jerome Avenue, or Odgen Avenue trolley lines, all of which transfer to the University Avenue line.

THE UNIVERSITY COLLEGE

OPENED 1832

Faculty of the College, 1913-1914

ELMER ELLSWORTH BROWN, PH.D., LL.D.,

Chancellor of the University.

JOHN H. MACCRACKEN, PH.D.,

Syndic of the University.

FRANCIS HOVEY STODDARD, PH.D.,

Dean; Professor of the English Language and Literature.

DANIEL W. HERING, PH.D., C.E., LL.D.,

Professor of Physics.

WILLIAM KENDALL GILLETT, M.A., L.H.D.,

Professor of the French and Spanish Languages.

ERNEST GOTTLIEB SIHLER, PH.D.,

Professor of the Latin Language and Literature.

MARSHALL S. BROWN, M.A.,

Professor of History and Political Science.

CHARLES L. BRISTOL, PH.D.,

Professor of Biology.

LAWRENCE A. McLOUTH, B.A., LL.D.,

Professor of the German Language and Literature.

WILLIAM E. WATERS, PH.D.,

Professor of the Greek Language and Literature.

THOMAS W. EDMONDSON, PH.D.,

Professor of Mathematics and Secretary of the Faculty.

CHARLES GRAY SHAW, PH.D.,

Professor of Ethics and Assistant Professor of Philosophy.

ARCHIBALD L. BOUTON, M.A.,

Dean-elect; Professor of English.

JOSEPH FRENCH JOHNSON, D.C.S.,

Professor of Political Economy and Finance.

FREDERICK H. WILKENS, PH.D.,

Associate Professor of German.

FRANK H. CANN,

Director of Physical Training and Athletics.

ARTHUR E. HILL, PH.D.,

Professor of Analytical Chemistry. Director of the Havemeyer Laboratory.

- WILLIAM M. CAMPBELL, M.A.,
Assistant Professor of Physics.
- J. LORING ARNOLD, PH.D.,
Professor of Electrical Engineering.
- JOSEPH EDMUND WOODMAN, S.D.,
Professor of Geology; Director of the Geological Museum.
- JOHN P. SIMMONS, SC.D.,
Assistant Professor of Chemistry.
- THEODORE F. JONES, PH.D.,
Assistant Professor of European History.
- ARTHUR H. NASON, M.A.,
Assistant Professor of English.
- GEORGE I. FINLAY, PH.D.,
Assistant Professor of Geology.
- P. L. THORNE, M.S.,
Assistant Professor of Mathematics.
- EDWIN CLAPP, PH.D.,
Professor of Economics.
- H. C. LATON, B.A.,
Instructor in Romance Languages.
- FRANK L. BIBB, B.A.,
Instructor in Music.
- PHILIP B. KENNEDY, M.A.,
Instructor in Economics.
- EARL FARNAU, PH.D.,
Instructor in Chemistry.
- ROY HUNTER, M.A.,
Instructor in Physics.
- CHARLES J. MOORE, PH.D.,
Instructor in Chemistry.
- JOHN WHYTE, M.A.,
Instructor in German.
- GEORGE A. BECKER, M.A.,
Instructor in Mathematics.
- FRIEDRICH WILHELM SCHOLZ, M.A.,
Instructor in German.
- EDWARD A. STEVENS, B.S.,
Instructor in Physics.
- CHARLES A. TONSOR, JR., PH.D.,
Instructor in English.
- RICHARD W. WATKINS,
Instructor in Biology.
- CAREY C. D. BRIGGS, B.S.,
Instructor in English and Public Speaking.

- FINLEY MELVILLE FOSTER, B.A.,
Instructor in English.
- FRANK A. AMON, M.S.,
Assistant in Chemistry.
- HENRY S. SCHUARZ, B.A.,
Instructor in Romance, Languages.
- HENRY A. HOLMES, M.A.,
Instructor in French.
- FRANCISCO M. BARRANCO,
Instructor in Latin.
- JOSEPH C. BLUCHER, B.S.,
Assistant in Chemistry.
- HENRY P. BOSE, B.A.,
Assistant in German.
- FREDERICK WILLIAM GARNJOST, B.S.,
Assistant in Physics.
- CHARLES CLARK HASELY, B.S.,
Assistant in Chemistry.
- PHILIP LIPSHITZ,
Assistant in Biology.
- SAMUEL WEINIK, B.S.,
Inman Fellow in Chemistry
- ISAAC MILES WRIGHT, B. S.,
Assistant in Biology.
- M. A. MILLER,
Assistant in Gymnasium.
- A. STEITZ,
Assistant in German.
- H. J. BAGG,
Assistant in Biology.
- CHESTER F. C. WHITNEY, M.D.,
Lecturer on Hygiene.
- FRANK A. FALL, M.A.,
Bursar of the University.
- GEORGE C. SPRAGUE, Ph.D.,
Registrar of the University.
-

- BELLE CORWIN, M.D.,
Librarian of the General Library.
- JEANNE M. ELLIOTT,
Recorder.
- EMMA F. SCHIRMER,
Secretary to the Dean.

1913-1914

*Standing Committees of the Faculty of
College of Arts and Pure Science*

Admission: Chairman, PROFESSOR EDMONDSON; PROFESSORS GILLETT, BRISTOL, CAMPBELL and THORNE.

Scholarship: Chairman, PROFESSOR SIMMONS; PROFESSORS McLOUTH, BROWN and DR. TONSOR, with the Recorder *ex-officio*.

Curriculum: Chairman, PROFESSOR BROWN; PROFESSORS HERING; GILLETT, BOUTON, HILL and WOODMAN.

Scholarships: DEAN STODDARD and PROFESSOR EDMONDSON.

DEAN STODDARD is an *ex-officio* member of each committee in the College of Arts.

*Joint Standing Committees of the College of Arts and Pure Science
and the School of Applied Science*

Discipline: Chairman, PROFESSOR BOUTON, DEAN STODDARD, DEAN SNOW, PROFESSORS HARING, HILL, BROWN, and McLOUTH.

Organizations: Chairman, PROFESSOR JONES; PROFESSORS GILLETT, WOODMAN and THORNE, DR. MOORE and MR. CANN, with DEAN STODDARD and DEAN SNOW as *ex-officio* members.

Examination Schedule: Chairman, PROFESSOR JONES; PROF. THORNE and MR. HEATON.

Music in Chapel: PROFESSOR WATERS; DR. TONSOR and MR. BIBB. The CHANCELLOR is an *ex-officio* member of each committee.

For circulars of the University College, or School of Applied Science address the Recorder of the Faculty, New York University, University Heights, New York City. The office hours of the Recorder are 9 A.M. to 4.30 P.M. During July and August an assistant will represent the Recorder.

Entrance certificates should be forwarded to the Recorder as soon as prepared.

Inquiries respecting admission to University College should be addressed to Dean Francis Hovey Stoddard, University Heights, New York City. The Dean may be seen at his office in Language Hall, on Mondays, Tuesdays, Thursdays and Fridays, from 11.30 to 12.30 until June 10, and after September 17.

The Secretary of the Faculty may be seen in his office in the morning daily except Saturday, during the college year.

Inquiries respecting rooms should be addressed to the Superintendent of Grounds and Buildings, Albert Woolsey, University Heights, New York City.

UNIVERSITY COLLEGE OF ARTS AND PURE SCIENCE

General Statement

The undergraduate division of New York University was opened in 1832, and for many years had its home in the University Building at Washington Square. In the year 1894 it was removed to University Heights, in the Borough of the Bronx, New York City. The possession of beautiful grounds, with an athletic field and gymnasium, and especially the erection of both University and fraternity residence halls, greatly transformed the life of the College and marked a new era. In this new home the University College of Arts and Pure Science offers to students the advantages of the college life of the independent college in a small town, combined with the advantages that are to be gained from life in the metropolis and from intimate association with the wider intellectual life of a great university.

The curriculum of the University College leads to the degree of Bachelor of Arts and of Bachelor of Science upon the completion of 126 credits which are distributed as follows: (1) prescribed courses in certain general fields of knowledge, (2) courses constituting one major and two minors, and (3) free elective courses.

The plan of study permits the student to determine the general direction of his collegiate work and at the same time gives him the benefits of a carefully planned, well-rounded and consistent curriculum, the completion of which normally requires four years of study. A detailed statement of the requirements for graduation and of the various courses of study will be found in this Bulletin under the proper headings.

The college aims to secure for its students a liberal education and, at the same time, to adjust such education to the special requirements of later professional training. The course of study is so arranged that students may greatly broaden the range of their choice of subjects by electing courses in the professional schools of the University or may shorten the time required for the completion of college and professional studies by combining the work of certain professional schools with that of the University College.

The campus at University Heights is shared also by the University School of Applied Science, for those who wish upon leaving the High School to take up professional courses in Civil, Mechanical, or Chemical Engineering. A description of these courses will be found in the bulletin of the School of Applied Science.

These Schools of the University at University Heights offer to the undergraduate exceptional advantages in the instruction given, in the arrangement of courses, in the beauty of grounds and buildings, in the completeness of equipment, in the social life of the college, in the opportunities for gymnastics and athletics, and in the manifold outside educational forces of a metropolis.

Requirements for Admission

(1) The applicant must present satisfactory written testimonials showing that he is a young man of good moral character. When the applicant comes from another college he must present a certificate of honorable dismissal.

(2) The applicant must have pursued a thorough course of preparatory study and must be proficient in fifteen units of secondary school subjects. A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of the full year's work. A unit may be also defined as representing the work performed during four or five periods a week for one year, each period to be not less than forty minutes long. The subjects required for the University College of Arts and Pure Science are as follows:

FOR SECTION A.—English, three units; Latin, four units; either Greek, three units, or French, two units, or German, two units; Algebra, one and one-half units; Plane Geometry, one unit; and sufficient units to bring the total up to fifteen from the list of elective subjects given below.

FOR SECTION B.—English, three units; Algebra, one and one-half units; Plane Geometry, one unit; Solid Geometry, one-half unit; Trigonometry, one-half unit; Elementary French, two units; Elementary German, two units; either Chemistry or Physics, one unit; and three and one-half additional units from the list of Elective Subjects given below.

FOR SECTION C.—MEDICAL PREPARATORY CLASS. For requirements for admission to this section, see page 13.

ELECTIVE SUBJECTS

Advanced English, one unit; History, one or two units; Latin, four units; Greek, three units; French, two or three units; German, two or three units; Spanish, two units; Solid Geometry, one-half

unit; Trigonometry, one-half unit; Advanced Algebra, one-half unit; Physics, one unit; Chemistry, one unit; Botany, one unit; Geography, one unit; Zoölogy, one unit; Drawing, one unit.

The following table shows the number of specified and of elective units that will be required for admission:

	Units Re- quired for Section A	Units Re- quired for Section B	Electives
English.....	3	3	1
Latin.....	4	..	4
Greek.....	} 2 or 3	..	3
Elementary German.....		2	2
Intermediate German.....		..	1
Elementary French.....		2	2
Intermediate French.....	..	..	1
Spanish.....	..	..	2
History.....	..	..	1 or 2
Algebra, A i—To Quadratics.....	1	1	..
Algebra, A ii—Quadratics and Beyond.....	$\frac{1}{2}$	$\frac{1}{2}$	..
Algebra B—Advanced.....	..	..	$\frac{1}{2}$
Plane Geometry.....	1	1	..
Solid Geometry.....	..	$\frac{1}{2}$	$\frac{1}{2}$
Trigonometry.....	..	$\frac{1}{2}$	$\frac{1}{2}$
Physics.....	..	1 or	1
Chemistry.....	..	1	1
Botany.....	..	..	1
Zoölogy.....	..	..	1
Geography.....	..	..	1
Drawing.....	..	..	1
Sum of Specified Units.....	$11\frac{1}{2}$ or $12\frac{1}{2}$	$11\frac{1}{2}$	....
Sum of Elective Units.....	$3\frac{1}{2}$ or $2\frac{1}{2}$	$3\frac{1}{2}$	....
Total Required Units.....	15	15	....

Detailed definitions, showing what is included under each of the above subjects, will be found given on page 13 under the heading "Definition of Requirements."

Evidence of proficiency in these subjects may be given by the candidate in any one of five ways, as follows:

1. *By Certificate of an Approved School.*—Students from approved secondary schools may be admitted to the Freshman Class upon certificate, without examinations, subject to the following conditions: 1. The application for the admission of a student by certificate must be specific in character, stating that the student has attended the school at least one year, and has completed at least fifteen units of secondary school work. Blank forms of certificate for this purpose will be furnished by the University upon application. 2. The University does not bind itself to accept beyond the current year the certificate of any school in place of examinations, but will continue to accept certificates from those schools which shall have sent to the University students thoroughly prepared, as proved by their standing after admission.

2. *By Certificate of the College Entrance Examination Board.*—The College Entrance Examination Board is an association of colleges and secondary schools formed to conduct uniform college entrance examinations at numerous points throughout the country. New York University is a member of the association and will admit to University College students who present a certificate showing that they have passed the Board's examinations in the subjects prescribed by the University for entrance. The Board will hold examinations at University Heights, June 15–20, 1914. All applications for this examination must be addressed to the Secretary of the College Entrance Examination Board, Post Office Substation 84, New York City, N. Y., and must be made upon a blank form to be obtained from the Secretary of the Board upon application. Applications for this examination must be received by the Secretary of the Board at least two weeks in advance of the examination, *i. e.*, on or before Monday, June 1, 1914. An examination fee of \$5 is charged of all candidates; and students who enter the University College of Arts and Pure Science on the Board's certificate, having paid the Board's fee for examination, are exempted from payment of the University matriculation fee. For further information regarding these examinations, and a complete list of the places where they are held, address the Secretary of the Board, Thomas S. Fiske, Ph.D., Sub-station 84, New York City.

3. *By Entrance Examinations of the University College.*—No entrance examinations will be held by the University in June in view of the examinations held at the University at that time under the direction of the College Entrance Board. The University will hold examinations in the subjects prescribed for entrance September 14–18, 1914, at University Heights, as follows:

	9.15–11.15	11.45–1.45	2.15–4.15
Mon., Sept. 14.....	Solid Geometry	Trigonometry	Chemistry
Tues., Sept. 15.....	Algebra	Plane Geometry	Botany and Zoölogy
Wed., Sept. 16.....	Latin and Advanced Algebra	Geography	German
Thurs., Sept. 17.....	Greek and French	History	Spanish
Fri., Jan. 18.....	English	Physics	Drawing

Entrance examinations for admission to the February–September division will be held by the University at University Heights from January 25 to 29, inclusive, 1915, according to the following schedule.

SCHEDULE OF ENTRANCE EXAMINATIONS—JANUARY, 1915.

	9.15–11.15	11.45–1.45	2.15–4.15
Mon., Jan. 25.....	Solid Geometry	Trigonometry	Chemistry
Tues., Jan. 26.....	Algebra	Plane Geometry	Botany and Zoölogy
Wed., Jan. 27.....	Latin and Advanced Algebra	Geography	German
Thurs., Jan. 28.....	Greek and French	History	Spanish
Fri., Jan. 29.....	English	Physics	Drawing

Students may take a part of the examinations as “preliminaries” a year before entrance, but no student will be examined who does not submit a certificate of preparedness for examination in the subject in which the candidate offers himself, from the school last attended.

4. *By Diploma of the Regents of the State of New York.*—The academic and college entrance diplomas of the Regents will be accepted in satisfaction of the requirements for entrance, when such diplomas cover the subjects required for admission to the Freshman class.

5. *By Certificate from another College.*—A letter from a college maintaining requirements for admission equal to those of the University, stating that the candidate has been admitted to the Freshman class of that institution and is honorably dismissed in order to enter another college, will be accepted in satisfaction of the requirements for entrance.

Requirements for Admission to Section C.—Medical Preparatory Class

Entrance to the preparatory college course for Medical Students will be based upon any one of the following evidences of qualification:

(1) A diploma of graduation from a four-year high school course recognized by the Regents of the State of New York.

(2) A certificate of the College Entrance Examination Board covering fifteen units of Secondary School Subjects.

(3) Entrance examinations of the University College covering fifteen units of Secondary School Subjects.

(4) A certificate of admission to the freshman class of a recognized college.

The subjects required for entrance are more explicitly defined as follows, in accordance with the standard requirements of the College Entrance Examination Board:

*Definition of Requirements
English*

NOTE.—However accurate in subject-matter, no paper will be considered satisfactory if seriously defective in punctuation, spelling, or other essentials of good usage.

A. **READING.** This part of the examination will be upon ten units chosen from the following lists; and it may include also questions upon grammar and the simpler principles of rhetoric, and a short composition upon some topic drawn from the student's general knowledge or experience. On the books prescribed for reading, the form of the examination will usually be the writing of short paragraphs on several topics which the candidate may choose out of a considerable number. These topics will involve

such knowledge and appreciation of plot, character-development, and other qualities of style and treatment as may be fairly expected of candidates. In grammar and rhetoric, the candidate may be asked specific questions upon the practical essentials of these studies, such as the relation of the various parts of a sentence to one another, the construction of individual words in a sentence of reasonable difficulty, and those good usages of modern English which one should know in distinction from current errors.

At least ten units—each unit is set off by semicolons—are to be selected, two from each group:

I. The *Old Testament*, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the *Odyssey*, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII; the *Iliad*, with the omission, if desired, of Books XI, XII, XIV, XV, XVII, XXI; Vergil's *Æneid*. The *Odyssey*, *Iliad*, and *Æneid* should be read in English translations of recognized literary excellence.

For any unit of this group a unit from any other group may be substituted.

II. Shakespeare's *The Merchant of Venice*; *Midsummer Night's Dream*; *As You Like It*; *Twelfth Night*; *Henry the Fifth*; *Julius Cæsar*.

III. Defoe's *Robinson Crusoe*, Part I; Goldsmith's *The Vicar of Wakefield*; either Scott's *Ivanhoe*, or Scott's *Quentin Durward*; Hawthorne's *The House of Seven Gables*; either Dickens's *David Copperfield*, or Dickens's *A Tale of Two Cities*; Thackeray's *Henry Esmond*; Mrs. Gaskell's *Cranford*; George Eliot's *Silas Marner*; Stevenson's *Treasure Island*.

IV. Bunyan's *Pilgrim's Progress*, Part I; the *Sir Roger de Coverley Papers* in the *Spectator*; Franklin's *Autobiography* (condensed); Irving's *Sketch Book*; Macaulay's *Essays on Lord Clive and Warren Hastings*; Thackeray's *English Humourists*; *Selections from Lincoln*, including at least the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the Last Public Address, and Letter to Horace Greeley, along with a brief memoir or estimate; Parkman's *Oregon Trail*; either Thoreau's *Walden*, or Huxley's *Autobiography* and selections from *Lay Sermons*, including the addresses on *Improving Natural Knowledge*, *A Liberal Education*, and *A Piece of Chalk*; Stevenson's *Inland Voyage* and *Travels with a Donkey*.

V. Palgrave's *Golden Treasury (First Series)*, Books II and III, with especial attention to Dryden, Collins, Gray, Cowper, and Burns; Gray's *Elegy in a Country Churchyard* and Goldsmith's *The Deserted Village*; Coleridge's *The Ancient Mariner*; and Lowell's *The Vision of Sir Launfal*; Scott's *The Lady of the Lake*; Byron's *Childe Harold, Canto IV*, and the *Prisoner*

of *Chillon*; Palgrave's *Golden Treasury (First Series) Book IV*, with especial attention to Wordsworth, Keats, and Shelley; Poe's *The Raven*, Longfellow's *The Courtship of Miles Standish* and Whittier's *Snow Bound*; Macaulay's *Lays of Ancient Rome* and Arnold's *Sohrab and Rustum*; Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, and *The Passing of Arthur*; Browning's *Cavalier Tunes*, *The Lost Leader*, *How they brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incidents from the French Camp*, *Hervé Riel*, *Pheidippides*, *My Last Duchess*, *Up at a Villa—Down in the City*.

B. STUDY. This part of the examination will include composition and the books comprised in the following list. The test in composition will consist of one or more essays, developing a theme through several paragraphs; the subjects will be drawn from the books prescribed for study, from the candidate's other studies, and from his personal knowledge and experiences quite apart from reading. For this purpose the examiner will provide several subjects, perhaps five or six, from which the candidate may make his own selections. The test on the books prescribed for study will consist of questions upon their content, form and structure, and upon the meaning of such words, phrases and allusions as may be necessary to an understanding of the works and an appreciation of their salient qualities of style. General questions may be asked concerning the lives of the authors, their other works, and the periods of literary history to which they belong.

In 1914 the books set for this part of the examination will be:

Shakespeare's *Macbeth*; Milton's *Comus*, *L'Allegro*, and *Il Penseroso*; either Burke's *Speech on Conciliation with America*, or both Washington's *Farewell Address* and Webster's *First Bunker Hill Oration*; Macaulay's *Life of Johnson*, or Carlyle's *Essay on Burns*.

Either part of the examination may be taken separately.

History

A. Ancient history, with special reference to Greek and Roman history and including also a short introductory study of the more ancient nations and the chief events of the early Middle Ages, down to the death of Charlemagne (814).

NOTE.—Certain changes will be made in the lists of books provided for reading and study for the examinations to be held in 1915-1919. For details, see Document No. 62, issued by the College Entrance Examination Board.

B. Mediæval and modern European history, from the death of Charlemagne to the present time.

C. English history.

D. American history and civil government.

Latin

Either

Old Requirement

- A. i. LATIN GRAMMAR: The inflections; the simpler rules for composition and derivation of words; syntax of cases and the verbs; structure of sentences in general, with particular regard to relative and conditional sentences, indirect discourse and the subjunctive.
- ii. LATIN COMPOSITION: Translation into Latin of detached sentences and very easy continuous prose based upon Cæsar and Cicero.
- B. CÆSAR: Any four books of the *Gallie War*, preferably the first four.
- C. CICERO: Any six orations from the following list, but preferably the first six mentioned:
The four orations against Catiline, Archias, the Manilian Law, Marcellus, Roscius, Milo, Sestius, Ligarius, the fourteenth Philippic.
- D. VERGIL: The first six books of the *Æneid*, and so much prosody as relates to accent, versification in general, and dactylic hexameter.

or

New Requirements

I. AMOUNT AND RANGE OF THE READING REQUIRED.

- i. The Latin reading, without regard to the prescription of particular authors and works, shall not be less in amount than Cæsar, *Gallie War*, I-IV; Cicero, the orations against Catiline, for the Manilian Law, and for Archias; Vergil, *Æneid*, I-IV.
- ii. The amount of reading specified above shall be selected by the schools from the following authors and works: Cæsar (*Gallie War* and *Civil War*) and Nepos (*Lives*); Cicero (orations, letters, and *De Senectute*), and Sallust (*Catiline* and *Jugurthine War*); Vergil (*Bucolics*, *Georgics*, and *Æneid*), and Ovid (*Metamorphoses*, *Fasti*, and *Tristia*).

II. SCOPE OF THE EXAMINATIONS.

- i. TRANSLATION AT SIGHT: Candidates will be examined in translation at sight of both prose and verse. The vocabulary, constructions, and range of ideas of the passages set will be suited to the preparation secured by the reading indicated above.
- ii. PRESCRIBED READING. Candidates will be examined also upon the following prescribed reading: Cicero, orations for the Manilian Law and for Archias, and Vergil, *Æneid*, I, II, and either IV or VI, at the option of the candidate, with questions on subject-matter, literary and historical allusions, and prosody. Every paper in which passages from the prescribed reading are set will contain also one or more passages for translation at sight; and candidates must deal satisfactorily with both these parts of the paper, or they will not be given credit for either part.
- iii. GRAMMAR AND COMPOSITION: The examinations in grammar and composition will demand thorough knowledge of all regular inflections, all common irregular forms, and all the ordinary syntax and vocabulary of the prose authors read in school, with ability to use this knowledge in writing simple Latin prose.

Greek

- A. i. GREEK GRAMMAR: The topics for examination in Greek grammar are similar to those detailed under Latin grammar.
- ii. ELEMENTARY PROSE COMPOSITION, consisting principally of detached sentences to test the candidate's knowledge of grammatical constructions.

The examination in grammar and prose composition will be based on the first two books of Xenophon's *Anabasis*.

- B. XENOPHON: The first three books of the *Anabasis*.
- C. HOMER: The first three books of the *Iliad* (omitting II, 494 to end), and the Homeric constructions, forms and prosody.

French

A. THE ELEMENTARY REQUIREMENT

THE AIM OF THE INSTRUCTION

At the end of the elementary course the pupil should be able to pronounce French accurately, to read at sight easy French prose, to put into French simple English sentences taken from the language of everyday life, or based upon a portion of the French text

read, and to answer questions on the rudiments of the grammar, as defined below.

THE WORK TO BE DONE

During the first year the work should comprise: (1) careful drill in pronunciation; (2) the rudiments of grammar, including the inflection of the regular and the more common irregular verbs, the plural of nouns, the inflection of adjectives, participles, and pronouns; the use of personal pronouns, common adverbs, prepositions and conjunctions; the order of words in the sentence, and the elementary rules of syntax; (3) abundant easy exercises, designed not only to fix in the memory the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (4) the reading of from 100 to 175 duodecimo pages of graduated texts, with constant practice in translating into French easy variations of the sentences read (the teacher giving the English) and in reproducing from memory sentences previously read; (5) writing French from dictation.

During the second year the work should comprise: (1) the reading of from 250 to 400 pages of easy modern prose in the form of stories, plays, or historical or biographical sketches; (2) constant practice, as in the previous year, in translating into French easy variations upon the texts read; (3) frequent abstracts, sometimes oral and sometimes written, of portions of the text already read; (4) writing French from dictation; (5) continued drill upon the rudiments of grammar, with constant application in the construction of sentences; (6) mastery of the forms and use of pronouns, pronominal adjectives, of all but the rare irregular verb forms, and of the simpler uses of the conditional and subjunctive.

B. THE INTERMEDIATE REQUIREMENT

THE AIM OF THE INSTRUCTION

At the end of the intermediate course the pupil should be able to read at sight ordinary French prose or simple poetry, to translate into French a connected passage of English based on the text read, and to answer questions involving a more thorough knowledge of syntax than is expected in the elementary course.

THE WORK TO BE DONE

This should comprise the reading of from 400 to 600 pages of French of ordinary difficulty, a portion to be in the dramatic forms; constant practice in giving French paraphrases, abstracts or reproductions from memory of selected portions of the matter read; the study of a grammar of moderate completeness; writing from dictation.

*German***A. THE ELEMENTARY REQUIREMENT****THE AIM OF THE INSTRUCTION**

At the end of the elementary course in German the pupil should be able to read at sight, and to translate, if called upon, by way of proving his ability to read a passage of very easy dialogue or narrative prose, help being given upon unusual words and constructions, to put into German short English sentences taken from the language of everyday life or based upon the text given for translation, and to answer questions upon the rudiments of grammar, as defined below.

THE WORK TO BE DONE

During the first year the work should comprise: (1) careful drill upon pronunciation; (2) the memorizing and frequent repetition of easy colloquial sentences; (3) drill upon the rudiments of grammar; (4) the reading of from 75 to 100 pages of graduated texts from a reader, with constant practice in translating into German easy variations upon sentences selected from the reading lesson (the teacher giving the English), and in the reproduction from memory of sentences previously read.

During the second year the work should comprise: (1) the reading of from 150 to 200 pages of literature in the form of easy stories and plays; (2) accompanying practice, as before, in the translation into German of easy variations upon the matter read, and also in the off-hand reproduction, sometimes orally and sometimes in writing, of the substance of short and easy selected passages; (3) continued drill upon the rudiments of grammar, directed to the ends of enabling the pupil, first, to use his knowledge with facility in the formation of sentences, and secondly, to state his knowledge correctly in the technical language of grammar.

B. THE INTERMEDIATE REQUIREMENT**THE AIM OF THE INSTRUCTION**

At the end of the intermediate course the pupil should be able to read at sight German prose of ordinary difficulty, whether recent or classical; to put into German a connected passage of simple English, paraphrased from a given text in German; to answer any grammatical questions relating to usual forms and essential principles of the language, including syntax and word-formation, and to translate and explain (so far as explanation may be necessary) a passage of classical literature taken from some text previously studied.

THE WORK TO BE DONE

The work should comprise, in addition to the elementary course, the reading of about 400 pages of moderately difficult prose and poetry, with constant practice in giving, sometimes orally and sometimes in writing, paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; also grammatical drill upon the less usual strong verbs, the use of articles, cases, auxiliaries of all kinds, tenses and modes (with special reference to the infinitive and subjunctive), and likewise upon word-order and word-formation.

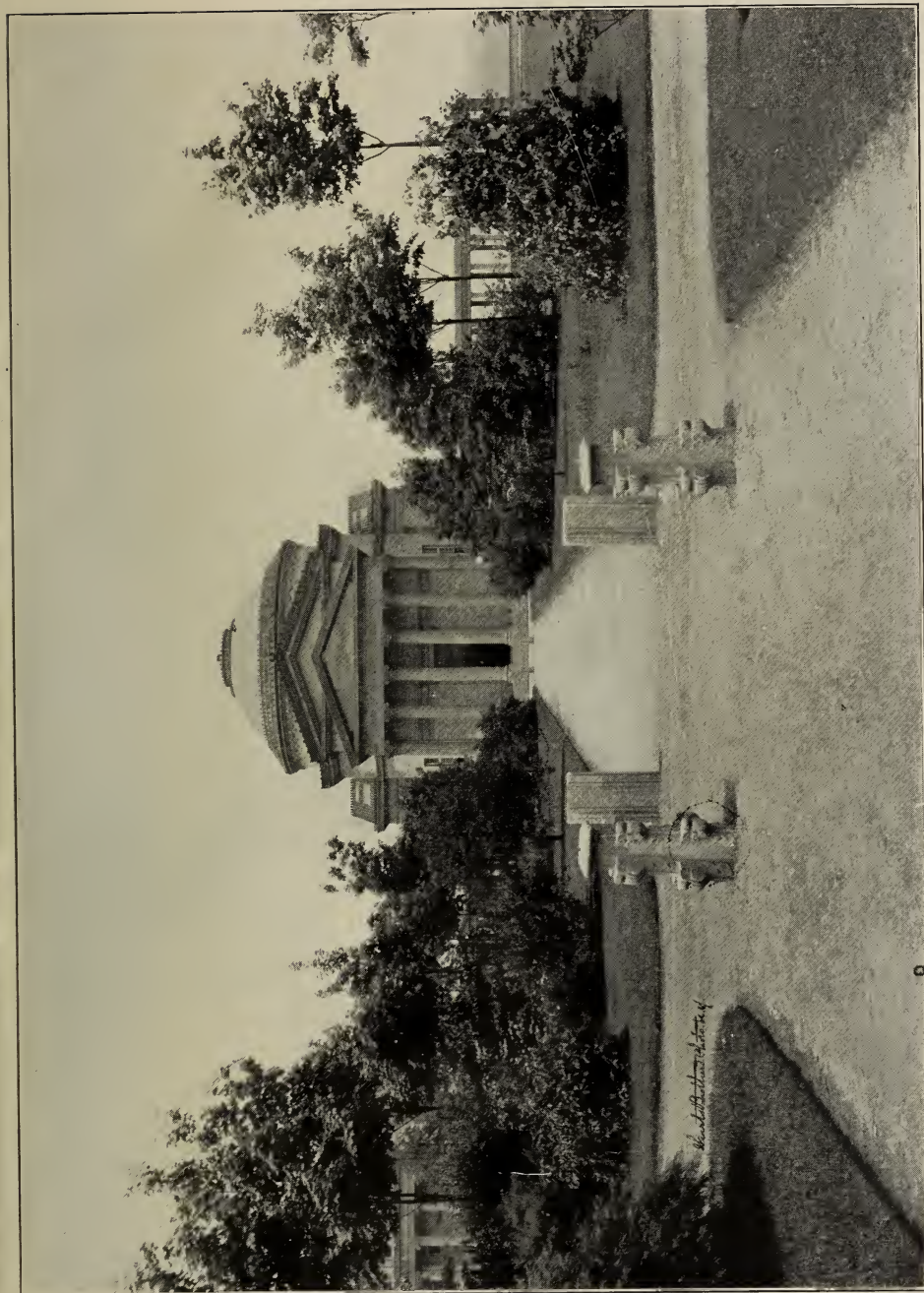
Spanish

At the end of the elementary course the pupil should be able to pronounce Spanish accurately, to read at sight easy Spanish prose, to put into Spanish simple English sentences taken from the language of everyday life or based upon a portion of the Spanish text read, and to answer questions on the rudiments of the grammar.

Mathematics

A. ELEMENTARY ALGEBRA:

- i. ALGEBRA TO QUADRATICS: The four fundamental operations for rational algebraic expressions. Factoring, determination of highest common factor and lowest common multiple by factoring. Fractions, including complex fractions, ratio and proportion. Linear equations, both numerical and literal, containing one or more unknown quantities. Problems depending on linear equations. Radicals, including the extraction of the square root of polynomials and of numbers. Exponents, including the fractional and negative.
- ii. QUADRATICS AND BEYOND: Quadratic equations, both numerical and literal. Simple cases of equations with one or more unknown quantities, that can be solved by the methods of linear or quadratic equations. Problems depending on quadratic equations. The binomial theorem for positive integral exponents. The formulas for the n th term and the sum of the terms of arithmetical and geometric progressions, with applications. It is assumed that pupils will be required throughout the course to solve numerous problems which involve putting questions into equations. Some of these problems should be chosen from mensuration, from physics, and from commercial life. The use of graphical methods and illustrations, particularly in connection with the solution of equations, is also expected.



MEMORIAL LIBRARY FROM THE MALL

- B. **ADVANCED ALGEBRA:** Permutations and combinations, limited to simple cases. Complex numbers, with graphical representations of sums and differences. Determinants, chiefly of the second, third, and fourth orders, including the use of minors and the solution of linear equations. Numerical equations of higher degree, and so much of the theory of equations, with graphical methods, as is necessary for their treatment, including Descartes' rule of signs and Horner's method, but not Sturm's functions or multiple roots.
- C. **PLANE GEOMETRY:** The usual theorems and constructions of good text-books, including the general properties of plane rectilinear figures; the circle and the measurement of angles; similar polygons; areas; regular polygons and the measurement of the circle. The solution of numerous original exercises, including loci problems. Applications to the mensuration of lines and plane surfaces.
- D. **SOLID GEOMETRY:** The usual theorems and constructions of good text-books, including the relations of planes and lines in space; the properties and measurement of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle. The solution of numerous original exercises, including loci problems. Applications to the mensuration of surface and solids.
- E. **TRIGONOMETRY:** Definitions and relations of the six trigonometric functions as ratios; circular measurement of angles. Proofs of principal formulas, in particular for the sine, cosine and tangent of the sum and the difference of two angles, of the double angle and the half angle, the product expressions for the sum or the difference of two sines or of two cosines, etc.; the transformation of trigonometric expressions by means of these formulas. Solution of trigonometric equations of a simple character. Theory and use of logarithms (without the introduction of work involving infinite series). The solution of right and oblique triangles, and practical applications, including the solution of right spherical triangles.

Physics

The course of instruction in physics should include:

- a. The study of one standard text-book for the purpose of obtaining a connected and comprehensive view of the sub-

ject. The student should be given opportunity and encouragement to consult other scientific literature.

- b. Instruction by lecture-table demonstrations, to be used mainly for illustration of the facts and phenomena of physics in their qualitative aspects and in their practical applications.
- c. Individual laboratory work consisting of experiments requiring at least the time of thirty double periods, two hours in the laboratory to be counted as equivalent to one hour of class-room work. The experiments performed by each student should number at least thirty. The work should be distributed so as to give a wide range of observation and practice.

At the time of the examination the candidate must present a note-book in which he has recorded the steps and the results of his laboratory exercises, and this note-book must bear the endorsement of his teacher, certifying that the notes are a true record of the pupil's work. It should contain an index of the exercises which it describes. It is practicable for pupils to make the original record of their observations entirely presentable, so that copying will be unnecessary, and they should in general be required to do so. This note-book will be returned at any time within a year at the request of the candidate.

A list of suitable experiments in physics is contained in the definitions of the requirements published by the College Entrance Examination Board.

Chemistry

It is recommended that the candidate's preparation in chemistry should include:

- (1) Individual laboratory work, comprising at least forty exercises selected from a list of sixty or more.
- (2) Instruction by lecture-table demonstrations to be used mainly as a basis for questioning upon the general principles involved in the pupil's laboratory investigations.
- (3) The study of at least one standard text-book, to the end that the pupil may gain a comprehensive and connected view of the most important facts and laws of elementary chemistry.

A list of suitable experiments in chemistry is contained in the definitions of the requirements published by the College Entrance Examination Board.

Geography

The entrance requirements consist of (1) a study of one of the

leading secondary text-books on Physical Geography; (2) individual laboratory work, comprising at least forty exercises covering the general subject as outlined below. From one-third to one-half the class-room work should be devoted to this. Field trips in spring and autumn should replace some, say eight, of the laboratory exercises. The time required for the subject should be at least four hours per week throughout a high school year.

A syllabus of the course to be covered is given in the pamphlet on the general subject of College Entrance Requirements issued by the College Entrance Examination Board. In general it is as follows: The Earth as a Globe (Mathematical Geography); The Ocean (including shoreline development) and The Atmosphere, as in most standard text-books; The Land, including changes now in progress, rivers and their cycles, glaciers and the forms produced by them, and the elements of land forms with the history of their development—plains, plateaus and mountains; finishing with a brief study of the relation of life, including man, to geographic environment.

The percentage of time required in studying the different subdivisions may be mathematical geography and the ocean each $12\frac{1}{2}$, the atmosphere 30, and the land 45.

Botany

The full year's course consists of two parts:

PART I. The general principles of: (a) Anatomy and morphology; (b) Physiology; (c) Ecology.

PART II. The natural history of the plant groups, and classification.

Zoölogy

A syllabus of the course to be covered is given in the pamphlet on the general subject of College Entrance Requirements issued by the College Entrance Examination Board.

Drawing

The examination will test the preparation of the candidate in the following points:

1. Ability to sketch from the object with reasonable correctness as to proportion, structure, and form. It is recommended that the subjects drawn include simple geometrical objects and simple natural objects such as living plant forms.
2. Ability to sketch freehand from dictation with reasonable accuracy any simple geometrical figure or combination of figures.

3. Ability to represent accurately in perspective a simple geometrical solid of which projection drawings are given, and ability to make consistent projection drawings of a simple geometrical solid of which a perspective representation is given.
4. Ability to answer questions in regard to the principles involved in making these drawings.

REQUIREMENTS FOR GRADUATION

The Bachelor's Degrees in Arts and Pure Science are annually conferred at Commencement by the Chancellor upon the vote of the University Council.

The Faculty of Arts and Science will recommend for such degrees students who shall have completed 126 credits in accordance with the rules and general plan of study described hereafter, and who shall in addition have presented a satisfactory thesis upon a subject approved by the Faculty. The student must submit the subject of his thesis, previously approved by his special adviser, to the Dean of the Faculty on or before December 20 of his Senior Year.

A typewritten copy of this thesis on paper of the prescribed size (8 x 10 inches) must be presented to the Dean of the Faculty on or before April 15. A fine of five dollars will be imposed upon each student who fails to comply with this rule. The thesis must include not less than two thousand (2000) nor more than three thousand (3000) words. The subject of the thesis must be related to one of the studies of the major which the student has been pursuing. An essay previously accepted as class work will not be received as a thesis.

FEES

The regulations as to fees adopted by the Council of the New York University are at present as follows. They are subject to change without notice.

Tuition Fees

Matriculation fee (paid once only)	\$5.00
Annual incidental fee, payable at beginning of first term . . .	20.00
Tuition in any of the Sections per year	125.00

\$75 payable at the beginning of the first term and \$50 payable at the beginning of the second term, ten days of grace being allowed, at the end of which time non-payment will debar from classes. This rule applies also to room rents.

Fee for the Athletic Association for the year	\$5.00
Diploma fee, covering Commencement charges	25.00

NOTE.—With the exception of Section C students (whose tuition fee is \$125 in addition to the matriculation, incidental, athletic and laboratory fees), the charge for tuition for students now in College who matriculated prior to March 1, 1914, will be \$100, one-half of which is payable at the beginning of the first term and one-half at the beginning of the second term.

Fees for Laboratory Material

Biology 3, 4, 5, 6, M1, M2, AM1, AM2, each course.....	5.00
Chemistry 3A, 4A, 3B, 4B, each course.....	4.00
Chemistry 3C, 4C, 3D, 4D, each course.....	8.00
Chemistry 5, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17, 21, 23, 24, each course	10.00
Geology 1, 2, 7, 8, 21,* 22*	3.00
Physics M1, M2, AM1, AM2, each course.....	2.50
Physics 1, 2, 9, 10, 13, 14, each course.....	3.00
Physics 7, 8, 11, 12, each course.....	5.00

Estimate of Necessary Expenses of Students

Exclusive of clothing and traveling expenses

	<i>Low</i>	<i>Moderate</i>	<i>Liberal</i>
Tuition.....	\$125	\$125	\$125
Gymnasium and incidental fees.....	25	25	25
Laboratory fees.....	10	20	30
Text-books and stationery.....	12	25	40
Room, light, fuel, and use of furniture	60	80	125
Board, 35 weeks.....	193	205	210
Washing and sundries.....	15	20	30
	<u>\$440</u>	<u>\$500</u>	<u>\$585</u>

BOARD AND ROOMS

University Residence Halls

GOULD HALL. This Residence Hall, the gift of Miss Helen Miller Gould in memory of her parents, Mr. and Mrs. Jay Gould, was opened Thanksgiving Day, 1896. It is designed for 112 students, and contains in its four stories 48 studies, each with an open fireplace; 64 bedrooms, accommodating 112 bedsteads; 8 bathrooms, most of them with shower baths; 112 clothes closets; 2 reception rooms; the entire building being thoroughly fireproof. The construction allows a choice of rooms in suites, differently arranged for one, two or three students. Steam heat is introduced into all the

*The fee for this course is charged only when laboratory exercises form part of the required work.

studies and bedrooms. Ventilation is aided by the handsome open fireplaces, one in every suite. The floors are of carefully matched hardwood, which may be left uncarpeted and used with rugs. All the rooms are lighted by electricity. Prices for rooms include light, heat, water, care of room, and use of furniture. Rent varies from \$60 a year, for the smallest single room, to \$225 for the highest priced corner suite. The furniture includes articles deemed necessary, excepting bedclothing and towels. In the attic is a large trunk room. Two elevators will convey students' trunks to this room for storage. In the basement, which is largely above ground, is the College Music Room.

WEST HALL, EAST HALL. The large residences on the Schwab and Chrystie estates, recently acquired by the University, have been refitted and newly furnished for use as residence halls. They have accommodations for sixty students. The rooms are heated by steam and lighted by gas.

Diagrams of rooms with prices will be sent upon application to Mr. A. Woolsey, Superintendent of the Grounds, University Heights. Reservations will be made in the order of application.

Rooms in Residence Halls are rented upon the condition that all damage done to room or furniture be made good immediately by the tenant. All damage done to building or contents outside of any students' room, unless made good by the person doing the same, will be assessed by the superintendent of the grounds equally upon the tenants of the Hall or the division of the Hall affected as the authorities may decide. Tenancy of rooms may be terminated by the University at any time for violation of the published rules respecting Residence Halls.

Commodious houses are owned or rented by several Greek Letter Fraternities, to accommodate their members, affording rooms at prices ranging from \$80 to \$175 a year, including heat, light, and attendance.

Table Board

Table board is offered in private families at \$5.00 and \$5.25 per week. A college dining hall is maintained in East Hall, with accommodations for two hundred students. The University assumes no responsibility in the matter of table board.

LOAN FUNDS

The Deems Loan Fund

Upon the celebration, October 3, 1887, of the twenty-first an-

niversary of the Church of the Strangers, the late Rev. Dr. Charles F. Deems, its pastor, under whose leadership the church was organized in the University chapel, founded this fund. The moneys constituting it are to be lent from time to time to students, in convenient sums, on satisfactory security, to be repaid with interest, after their leaving college, at a date agreed upon.

The Gould Fund

In October, 1896, a loan fund was founded by Miss Helen Miller Gould, from which loans will be made to students of the University on conditions similar to those observed in connection with the Deems Fund.

The Charles Force Deems Memorial Loan Fund

Established 1905, as a memorial of their late pastor, Rev. Dr. Charles F. Deems, D.D., LL.D., by the Sisters of the Strangers, a body of devoted women in the Church of the Strangers, New York City. Loans are made to students under the same conditions as those governing the Deems Fund.

SCHOLARSHIPS

All Scholarships may be withdrawn by the College Faculty at any time from the appointee upon his proving unfaithful to his duties as a member of New York University College.

Any one desiring to become a candidate for any one of the following scholarships, except the first named, is requested to address the Dean of the College not later than June 1, making a full statement of his attainments and of his plans for college work, and asking such questions as he may desire to have answered in regard to the award of the scholarships.

Preparatory School Prize Scholarships

The University College supports each year a number of preparatory school Prize Scholarships worth \$200 each, to be applied toward the payment of tuition fees of the first two years. One of these Prize Scholarships is in the gift of each of the high schools of New York City and vicinity from which the College has received students who have taken high rank and won honors during the College course. This Scholarship may, at the option of the principal, be awarded to a student entering in September or in February of each academic year. A few high schools which have sent large numbers of Freshmen to the University College, or have sent students to win distinguished honors, may have a gift of two Prize Scholarships, one of which shall be available for a student entering the Col-

lege of Arts in September and one for a student entering in February. The bestowal of these scholarships will be made each year upon nomination by the principal of the school of a scholar whose rank, general conduct, high standing among his classmates and exceptional promise of usefulness make him, in the opinion of the principal, a student who will win honors in the College and reflect credit upon the school from which he comes. The authorities of the College will welcome an opportunity to confer with each principal respecting the nomination of the student for the Scholarship and to assist him in selection. These scholarships are open only to such students as are prepared to enter without condition. To maintain such scholarship, a student must remain free from conditions and must hold a creditable standing in scholarship. In special cases, a student who has maintained an exceptionally high rank or proved himself of unusual worth and promise may be awarded a continuation of the Scholarship through the Junior and Senior years of the College course. These scholarships are open only to students who intend to take the full four years' course in the College of Arts and Pure Science. They are not available for students entering for the Medical Preparatory course of one or two years.

Foundation Scholarships

The University has in its gift a few Scholarships of 1832, which may be given as beneficiary Scholarships in specially deserving cases, each of which provides a part of the tuition fees of a student.

Thomas S. Baley Scholarship

Founded by Mrs. Hannah Ireland, endowed with \$5000. The income of the fund is paid to one or more students in the College of Arts in said University who may be in preparation for the Gospel Ministry. This Scholarship shall be awarded by the Chancellor of the University, who has also power to withdraw its benefit when the recipient has proved himself unworthy.

Gould Memorial Scholarships

These seven scholarships were founded and endowed with \$6000 each by Miss Helen Miller Gould, in memory of her father. They are as follows:

I. FIRST JAY GOULD SCHOLARSHIP. II. SECOND JAY GOULD SCHOLARSHIP. III. THIRD JAY GOULD SCHOLARSHIP. The nomination to each of these Scholarships is in the gift of the Founder.

IV. DELAWARE COUNTY SCHOLARSHIP. V. ROXBURY SCHOLARSHIP.

The candidate for the Delaware County Scholarship or for the Roxbury Scholarship must be a resident of Delaware County, New York, and a certain preference among candidates will be shown to residents of Roxbury and vicinity in said county.

VI. WESTERN SCHOLARSHIP.—The candidate for the Western Scholarship must be a resident upon the line of the Missouri Pacific Railway system, including the Iron Mountain Railway and leased lines. A certain preference among candidates will be shown to sons of persons connected with the railways above named.

VII. SOUTHWESTERN SCHOLARSHIP.—The candidate for the Southwestern Scholarship must be a resident upon the line of the Texas Pacific, the St. Louis Southwestern, or the International and Great Northern Railway. A certain preference among candidates will be shown to sons of persons connected with the railways above named.

Northrop Scholarship

Founded by Miss Ida Northrop and endowed with \$5000. The nomination to this Scholarship is in the gift of the Founder.

Ralph Hoover Shaw Scholarship

Founded by Professor and Mrs. Edward R. Shaw, in memory of their son, who died January 2, 1899, a member of the Class of 1900. Endowed with \$2500 to cover the yearly tuition of a deserving student in need of aid. Preference is given to applicants from Bellport, L. I., and from Yonkers, N. Y.

Irvington and Tarrytown Scholarships

Founded by Miss Helen Miller Gould. The former scholarship is awarded to one of the young men of the graduating class of the Irvington High School at Irvington, N. Y., and the latter in like manner to one of the young men of the graduating class of the Washington Irving High School at Tarrytown, N. Y., the scholar to be selected by the Principal of the school and the Board of Education in charge of the school. Should the appointee from the graduating class be unable to avail himself of the scholarship, an alternate is to be appointed by the Principal and the Board from among the graduates of the school. The appointee is to hold the scholarship for the full College course of four years. In case either scholarship is not filled under the above rules, the University will award the same to some deserving student, but for the period of one year only. Each scholarship is endowed with \$6000.

The Class of '90 Scholarship

Founded in 1905 by a gift of \$1000 by the Class of 1890. The income of the fund is to be used to pay in part the tuition of a student in the University College, School of Applied Science, or Graduate School, preference being given to any student recommended by the Class of 1890.

The Catlin Memorial Scholarships

Founded in 1907 by a bequest of \$10,000, by the late Miss Catharine L. R. Catlin, in memory of her brother, Charles M. Catlin, who graduated from the University College of Arts and Pure Science in 1848 with the degree of Bachelor of Arts, who received the degree of Master of Arts in 1851, and died in 1871. The income of the fund is for perpetual maintenance of tuition scholarships, at least one of which shall be awarded each year to a deserving student of the College of Arts and Pure Science.

The Charles S. Webb Classical Scholarship

Founded in 1910 by bequest of \$1000, of the late Charles S. Webb of the Class of 1851. The income of the fund is to be used to pay in part the tuition of a student taking the classical course in the College of Arts and Pure Science.

PRIZES

*Eucleian Prizes**A. Ogden Butler Trust*

This trust, consisting of \$5000, is held by the University for the benefit of the members of certain societies. One-seventh of the income from that half of the same which is held for the Eucleian Literary Society is devoted by the will of the Founder, A. Ogden Butler, a member of the Class of 1853, who died in 1856, to "Annual prizes to those two acting members of the Society who may in each year be the authors of the best two essays on any subject, of which the Chancellor of the University, with the Professors of Belles-Lettres and Greek, shall be the judges."

These prizes are given under the following rules:

1. All essays in competition in any year shall be put into the hands of the Professor of Belles-Lettres not later than three months before Commencement.

2. The prizes shall be conferred at Commencement, and the names of the recipients included in the annual catalogue.

German Prize

A prize of the value of \$50, founded by Mr. Herman Ridder, will

be awarded at Commencement for the best essay on some topic connected with German literature. The subject for 1914-15 is: "Lessing's *Die Juden* as fore-study to *Nathan*." The competition is open to all students who take German.

Sandham Oration Prizes

The income of the George Augustus Sandham fund is devoted to the maintenance of an oratorical contest open to Seniors and Juniors in the University College and in the School of Applied Science. Two prizes, of \$100 and \$75 respectively, will be awarded on the basis of excellence in the composition and delivery of original orations. The conditions of the competition are as follows:

1. The orations are to be written upon subjects chosen by the writers.
2. These orations must contain not less than 700 words, nor more than 1300.
3. Orations submitted for the contest must be mailed to the English Department not later than April 1.
4. Such orations are to be signed with a fictitious name; and the fictitious name, with the name of the writer, must be written on a card and inclosed in an envelope on the outside of which is to be inscribed the title of the oration. This envelope is to be mailed with the oration.

The orations thus presented will be submitted to a committee of judges, who will select a number, not to exceed eleven, on the basis of excellence in composition. The orations will then be returned to their authors, and the men thus designated will prepare for oral delivery of their orations at a preliminary contest, which will take place early in May. At this contest, and also at the final test, the excellence of the delivery will have equal weight with the excellence of composition in determining the decision of the judges. These judges will choose six men to speak for the prizes at the final contest, which will take place on Monday of Commencement Week in the Auditorium. No student who has won a prize in one competition is eligible to enter further competitions for these prizes.

The Frederick Seward Gibson Prize

This prize, being seventy (70) dollars, or the income of fifteen hundred (1500) dollars, was founded in 1901 from the estate of the late Frederick Seward Gibson, of the class of 1896, and is offered annually to undergraduates who are members in regular standing of the Senior class in the University College.

The prize is offered for an essay of high literary merit on a subject proposed by the Professor of English Literature as a proper subject for treatment in a literary form and approved by the College Faculty.

The essays offered in competition for this prize should contain not more than five thousand words, be signed with a fictitious name, and delivered to the Dean of the College not later than the first day of April. The award will be made by judges appointed by the Professor of English Literature and the Dean of the College, and will be announced at Commencement.

The James Gordon Bennett Prize

This prize was established May, 1893, by Mr. James Gordon Bennett for "the best essay in English prose upon some subject of American governmental, domestic, or foreign policy of contemporaneous interest." The prize will be awarded at Commencement, in accordance with the following rules:

1. Competition to the prize shall be opened to any "undergraduate student of the Senior class, or special student of two years' standing, who shall have taken the prescribed course of the institution in Political Science and English Literature."

2. The subject shall be announced by the Faculty not later than the first day of July.

3. Competitors shall hand in their names to the Dean on or before the fifteenth day of January.

4. All essays in competition for the prize must be typewritten on white letter-paper of the prescribed size (8 x 10 inches).

5. The essay shall contain not less than two thousand five hundred (2500) words, nor more than five thousand (5000) words.

6. The essays shall be handed to the Dean on or before the first day of May.

7. Each essay shall be signed with an assumed name, and shall be accompanied by a sealed envelope indorsed with the said assumed name and containing the true name of the author.

8. The Committee of Award shall consist of the Professors of English Literature, of Political Science, and of History, or shall be a special committee appointed by the Faculty.

9. The Announcement of the award shall be made on Commencement Day. The prize is \$50 or the income of \$1000.

The subject assigned by the Faculty for year 1914-15 is "The interpretation of the Hay-Pauncefote Treaty in relation to Panama Canal tolls."

The Samuel F. B. Morse Medal

Professor S. F. B. Morse provided in his will for a gold medal to be awarded for excellence in scholarship. In honor of the founder and his great contribution to the Science of Physics, the medal will be awarded to the student showing special ability in that department. In the award of the medal general scholarship will be allowed to weigh in proportion to scholarship in Physics as one to two.

The Sherborne Vernon Damerel Memorial Prize

This prize, interest of the Sherborne Vernon Damerel Prize Fund of \$1000, given by Mr. and Mrs. George Damerel, in loving memory of their son, who died June 24, 1909, a member of the class of 1910, is awarded on Commencement Day, by vote of the joint Faculty, to a member of the Senior class of the University College or of the School of Applied Science who has shown an earnest endeavor in his studies and in the general welfare of his class and college, and who gives promise of a useful life.

In the selection of the recipient, emphasis is laid primarily upon qualities of manly character and influence, and secondarily upon marked ability, but in judging of a student's qualifications, very high scholarship shall not be regarded as indispensable.

The 1907 Medals for Debate

Immediately after their graduation, the class of 1907 pledged itself to give medals to any student who shall by competition earn a place upon a debating team representing the College of Arts and Pure Science or the School of Applied Science in any intercollegiate contest. In the year 1911, the Class generously extended this gift so that it will apply in case two or more teams in a given year represent the School at University Heights in intercollegiate debates. When a student wins a place upon debating teams, subsequent to his first, he is entitled to receive for each success of this kind a bar which will be attached to the Medal first won.

The Macdonald Memorial Prizes in Public Speaking

In January, 1913, the Class of 1909 established two prizes of twenty-five and fifteen dollars, respectively, for excellence in public speaking, and named them in memory of their first class president, William Stuart Macdonald, who was struck and killed by a train at Boardville, New Jersey, in March, 1908. Competition for these prizes is open to Freshmen who have taken Public Speaking in the College of Arts and Pure Science or in the School of Applied

Science. The contest for 1914 will be one in the delivery of declamations, and will take place at the end of the spring term.

Twelve men will be selected from the courses indicated on the basis of ability in speaking; from whom, at a preliminary contest, eight speakers will be chosen for the final competition. Declamations selected for this contest should be approved by the instructor in charge of the courses, and should not exceed one thousand words in length.

FELLOWSHIPS

A. Ogden Butler Fellowships

Two Fellowships, founded by Mr. Charles Butler, are offered each year to students completing the course in Arts, as incentives to Graduate Study, namely:

The A. Ogden Butler Classical Fellowship, endowed with \$6000.

The A. Ogden Butler Philosophical Fellowship, endowed with \$6000.

These Fellowships are equal in rank, and will be bestowed by the Faculty upon two members of the graduating class, standing as to scholarship in the uppermost third of the class. A student in order to receive the award of a Fellowship must have made such attainments in scholarship as, in the judgment of the Faculty, will justify him in pursuing advanced studies in the Liberal Arts. Further, the student must have enrolled himself as a candidate for the degree of Master from the University under such rules as may be prescribed. The work of the Fellow shall include research in the line of study for the encouragement of which the Fellowship is founded and shall also include teaching duties such as the Chancellor may appoint.

In case in any year the Fellowship be not awarded or the income of an awarded Fellowship become not payable because its incumbent has not met the conditions named, then the income of such Fellowship shall be devoted to the fund for Graduate Scholarships.

William H. Inman Fellowship

Founded by Miss Inman

The principal of this fund, amounting to \$5000, is held by the University, the income arising from the same to be used for the support of the William H. Inman Fellowship. This fellowship is to be awarded to a student completing an undergraduate course whose scholarship places him in the foremost third of his class, and whose attainments are such, in the judgment of the Faculty, as will qualify him to pursue advanced studies in Science. Further, the student

must have enrolled himself as a candidate for the degree of Master from the University, under the rules prescribed. Further, he must serve for one year as a Demonstrator or Assistant in the Laboratory of Analytical Chemistry. But the last named condition may, for sufficient reasons, be suspended by action of the Faculty.

The tenure of the Fellowship is for one year, and it is to be known upon the Records of the University and announced in each annual Catalogue as the William H. Inman Fellowship.

GENERAL ANNOUNCEMENTS

Discipline

Each student upon entering is required to sign his name on the Matriculation Card, subscribing to the following pledge:

"We, whose names are hereunto attached by our personal signatures, being applicants for admission to the University College of Arts and Pure Science of New York University, do hereby pledge ourselves, on being admitted, to conform strictly and at all times to the Rules of the Institution, and by all proper means to promote its best interests."

Each student is thereupon assigned to a member of the Faculty, who is to act as his Special Adviser. The student must obtain from this Special Adviser the endorsement of his choice of studies, and of any subsequent alteration therein, and of any special action desired from the Faculty, before its submission to that body.

Every student is required to register with the Recorder of the Faculty on the first Monday or Tuesday of the fall term. Not later than 5 p. m. on Wednesday, September 23, 1914, he must file with the Recorder a card containing his choice of studies for the ensuing year, approved by his Special Adviser. Failure to comply with either of these rules will subject the student to a fine of five dollars in each instance.

The rules of the Faculty provide for prompt correspondence with the parent or guardian of each student in any case requiring it, and especially in case of unexcused absence or serious deficiencies in scholarship.

A printed copy of the rules governing students of the University College may be secured from the Secretary of the Faculty.

Term Reports, Examinations, Etc.

The name of each student admitted to the University College is entered upon a card by the Recorder. Here are recorded the conditions under which the student has been admitted; the result of

every examination required of the student; a copy of any action that may have been taken by the Faculty respecting him, whether concerning his scholarship, attendance, or behavior. This card will be submitted upon request to the student's parent or guardian. In the last week of each term, examinations are held, covering, in the case of each student, all the branches of study pursued by him.

Reexaminations are allowed only in courses rated as prescribed for all students and in those included in the students' major. In all other courses conditions can be removed only by repeating the course in which the condition has been incurred or by taking a subsequent additional course of equivalent credit.

Every student must take not less than fifteen nor more than eighteen credits per week, unless a special schedule for a smaller number of hours is approved by the Faculty.

Terms and Vacations

The year is divided into two terms:

The First Term begins on the Monday preceding the last Saturday of September, and continues until the nineteenth Saturday thereafter.

The Second Term begins on the Monday after the close of the First Term, and continues until Commencement, the nineteenth succeeding Wednesday.

The summer vacation extends from Commencement Day until the beginning of the First Term. The Christmas recess extends from the day before Christmas to New Year's Day, inclusive.

In addition to the vacations, the following holidays in term time are marked by a suspension of exercises, to wit: Washington's Birthday, at Easter, Thursday till Monday inclusive, Memorial Day, Election Day, Thanksgiving Day and the Friday and Saturday succeeding.

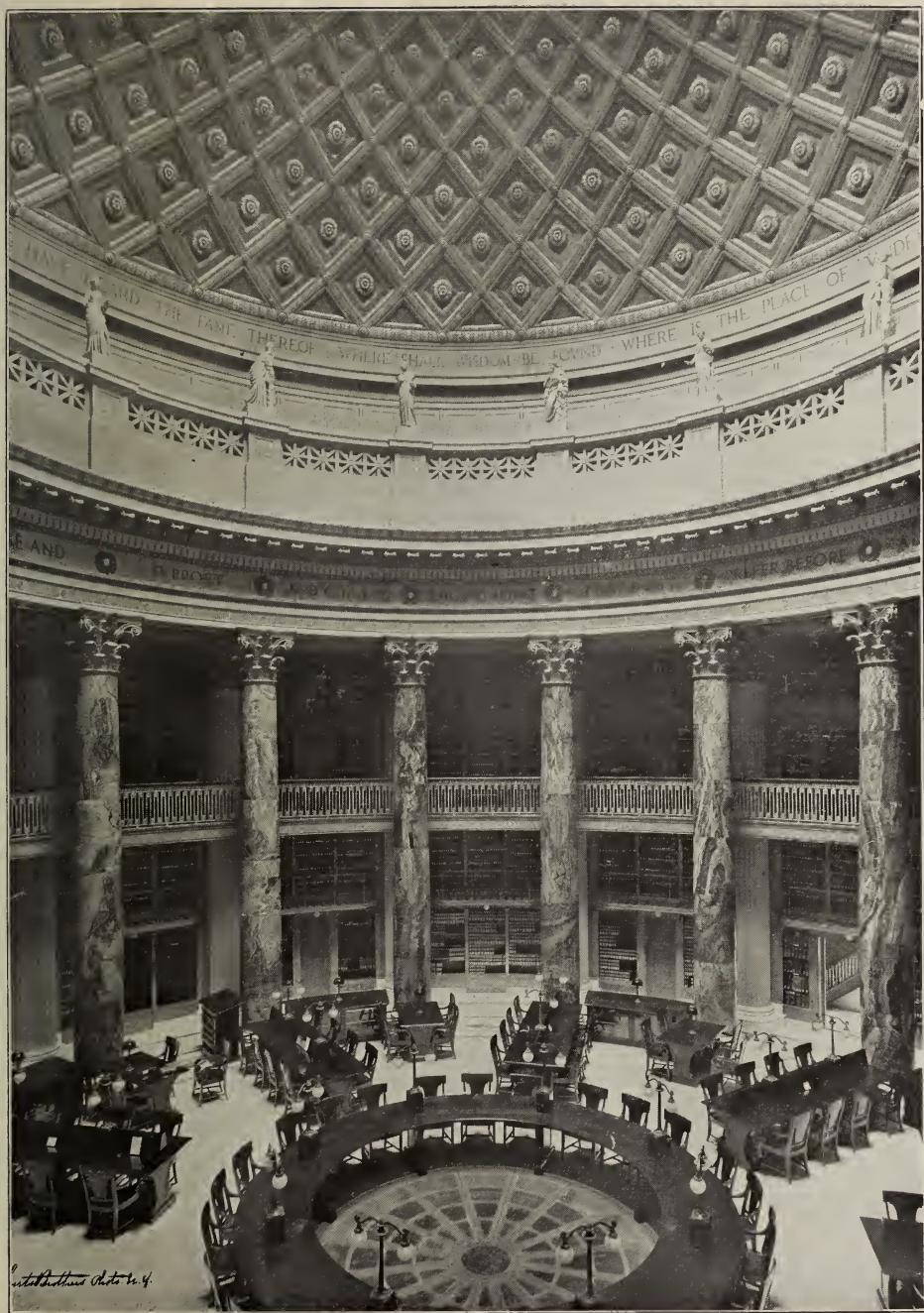
Commencement Week

Commencement Week extends from Saturday, June 6, to Wednesday, June 10, 1914, inclusive, including the following events:

Saturday, June 6, 12 M., annual meeting of the Phi Beta Kappa Society; 12.45 P.M., annual meeting New York University Historical Society.

Sunday, June 7, 4 P.M. In Auditorium, Baccalaureate Sermon, by Rev. William Pierson Merrill, D.D., pastor of Brick Presbyterian Church.

Monday, June 8, 3.30 P.M. In Auditorium, Senior and Junior Orations, for the Sandham Prizes.



READING ROOM, UNIVERSITY LIBRARY



BIRDSEYE VIEW OF LIBRARY
TAKEN FROM A KITE AT AN
ELEVATION OF 460 FEET
(By the courtesy of GILBERT T. WOGLOM)



SHOWING THE
HARLEM, THE HUDSON
AND THE PALISADES



CORRIDOR IN HALL OF FAME

Tuesday, June 9, 2 P.M. and 8 P.M. Upon the Campus at University Heights, Class Day exercises.

8 P.M. In Auditorium, Freshman Declamations for the Macdonald Memorial Prizes.

Wednesday, June 10, 10.30 A.M. In Auditorium, Conferring of degrees on candidates of the College of Arts and Pure Science and the School of Applied Science. Address by Hon. John Purroy Mitchell, mayor of New York.

Ethical and Religious Training

Daily attendance at Chapel exercises is required of every student, except Seniors who are taking the full first year's work in a University professional school downtown, and such students as elect instead of chapel attendance the ethical essay course defined below. Chapel exercises are held from 9.10 to 9.30 each morning. Every three weeks the student who selects the ethical essay course will be required to hand in an original theme of 800 to 1000 words upon a subject assigned him by the Dean touching morals or religion. This theme will be graded according to its merits and awarded the same weight in determining the student's standing as if it were a course requiring fifteen hours' recitation. Two failures in a term to hand in themes will be entered as a condition, being treated as a failure in a term examination. Where a student is absent from College for five or more days continuously, with a good excuse, his Chapel absences will be excused also. Where a student is absent from College less than five days continuously, even though excused, his absences from Chapel will be counted, and if they reach fifteen the student must present an ethical essay such as is described above. In every other case where a student is absent from chapel, he will be reckoned as substituting for chapel the Ethical Essay Course, an essay to take the place of fifteen days' attendance.

Chaplains, 1913-1914

Rev. DeWitt L. Pelton, D.D., Rector of St. James Protestant Episcopal Church.

Rev. Henry M. Brown, D.D., Pastor of Christ Congregational Church.

Rev. Percy B. Wightman, Pastor of the University Heights Presbyterian Church.

Rev. Arthur H. Limouze, Pastor of the Northminster Presbyterian Church.

Young Men's Christian Association

A branch of this Association has been established by a body of students. There is held under its auspices a weekly prayer-meeting every Thursday evening at 7.30 in their hall. Association Hall offers an assembly room, a social room and a room for games, for the use of all students who may become members of the Association. A Bible Class is held in the social room every Sunday morning. A Secretary of the Association has been appointed by the University.

Literary and Musical Societies

The Eucleian Literary Society holds stated meetings for the discussion of literary subjects. The Society owns a library of standard works which is increased from year to year by the income of the A. Ogden Butler bequest.

The Medley is a literary monthly published by this society.

The students maintain Glee, Banjo, and Mandolin Clubs. A competent director is secured and concerts are given in neighboring cities and at home. The Music Room in Gould Hall is equipped with a fine piano for the use of these organizations.

Work in the Literary and Musical Societies and on the college publications is encouraged as part of college training.

The Violet is the college annual and is published each year by the Junior class.

The New Yorker is the college weekly published by the students.

Physical Training and Athletic Sports

The College Gymnasium at University Heights is a building measuring 60 feet by 100 feet, with a running track in the gallery upon which twenty laps make one mile. Sets of apparatus of the latest patterns have been provided by the liberality of the late Mr. David Banks. The building, which is heated by steam and lighted by electricity, has a floor surface of 6000 square feet and contains director's office, examination room, dressing-rooms, and bath rooms. In the dressing-rooms are ample locker accommodations.

The Athletic Ground is called the Ohio Field, in honor of several former residents of Ohio, for many years citizens of New York, who contributed toward the establishment of University Heights. This field has a quarter-mile cinder track, and ample space for football, baseball, and general athletics. There has recently been added a covered grandstand with a seating capacity of 1200. Upon the west side of the Ohio Field is the lawn tennis ground, comprising four courts, each of the full regulation size.

Gymnastic exercise of one hour's duration is required on three afternoons weekly from Freshmen, and on two afternoons weekly from Sophomores during the period from November 1 to April 1. The work for Juniors and Seniors is elective.

Undergraduate students at the beginning of their Freshman year undergo a physical examination, and a complete record is made of their physical condition. This examination is repeated from time to time, and valuable information concerning the growth and development of the individual is thus obtained. From these figures an anthropometric chart is made out, which shows the relation of the individual to the normal standard, or average in size, strength, and symmetry, and points out the deficient parts, for which exercises are prescribed.

Exhibitions and contests are held at various times throughout the year. Prizes are awarded at the end of the year to students showing the greatest improvement in physical condition.

Athletic Sports in the University are under the direction of the University Athletic Association, the Faculty of Arts and Science, the Faculty of Applied Science and the Director of Athletics, Mr. Frank Cann.

Grounds and Buildings

The Campus at University Heights is a tract of thirty-eight acres, situated upon the bluff overhanging the eastern bank of the Harlem River, at an elevation of one hundred and seventy-five feet, and commands beautiful views in all directions. The grounds have been carefully graded, walks and roads laid out, trees and shrubs planted, and with the beautiful, broad lawns and fine outlook compare favorably with any college campus in the world. A description of the athletic field and tennis courts will be found above.

The Memorial Library, begun in 1895 and completed in 1900, is one of the five or six greatest library buildings in the United States. Its general reading room is second in beauty to few, if any, rooms of similar character in the world. In addition to the library proper the building contains the University Auditorium, with a seating capacity of fifteen hundred, and several rooms for administration offices. The building was the gift of Miss Helen Miller Gould, in memory of her parents, Mr. and Mrs. Jay Gould.

The Hall of Fame, comprising Museum and Colonnade, just west of the Library, is unique among college buildings, and is too well known to require description. The Hall of Fame has an important

educational function for the students of the College and is rich in inspiration.

Language Hall is devoted entirely to class-rooms and to the private offices of professors. It is a model fireproof building, equipped with the latest systems of heating and ventilation.

Cornelius Baker Hall of Philosophy, a new fireproof lecture and recitation building, was the gift of Mrs. John S. Kennedy (1912) in memory of her father, Cornelius Baker, a member of the University Council 1834-1838.

The Havemeyer Chemical Laboratory is a building devoted exclusively to the laboratories and class-rooms of the Department of Chemistry; a full description will be found on the following page.

Charles Butler Hall is the old mansion which was standing on the grounds at the time of the University's purchase. It has been remodeled for the class-rooms and laboratories of the Department of Physics.

Gould Hall, the new Residence Hall, stands on the eastern edge of the Campus, nearly a quarter of a mile distant from the Library. It is fully described elsewhere.

The Andrew H. Green Memorial Laboratory, erected 1904 by Mr. Frederick W. Devoe, has drawing-rooms on the first floor, and the laboratories and lecture-room of the Department of Biology on the second floor.

The Gymnasium, Association Hall and the Engineering Building are wooden buildings, adapted for the temporary accommodation of these departments at the time of the removal of the College in 1894. It is hoped that they may gradually be replaced by permanent buildings. In the meantime they furnish very satisfactory accommodations for these departments, giving large floor space, being well lighted, and being heated, as are all the University buildings, from a central heating plant.

Library and Laboratory Facilities

The University Library, at University Heights, contains sixty-five thousand volumes, and includes the Oswald Ottendorfer Library of Germanic Literature, the La Garde Library of Semitic Languages, and the Hübner Classical Library. Eighteen departments have each their own seminar rooms. These Seminar Rooms contain the working libraries of the departments, and are open to advanced students. The library is catalogued according to the Dewey decimal system. Books may be drawn by students for use in their rooms.

The Reading Room, for newspapers and magazines, is situated in the gallery of the Auditorium. Here will be found daily and weekly papers, and the best popular magazines, and domestic and foreign scientific reviews. The income of the *Burritt Hamilton Shepard Fund*, which was established upon Founders' Day, April 18, 1889, by the late Mr. Elliott F. Shepard, in memory of his brother, who died while a student of the University, is devoted entirely to supplying the Reading Room.

The Havemeyer Chemical Laboratory, provided by the liberality of Mr. William F. Havemeyer, in memory of his father and brother, is a building three stories in height and occupies an area of sixty by seventy feet. The lowest story contains workshops and storerooms as well as an even temperature room for gas analysis and an Assay Laboratory. The next floor contains a spacious lecture room, with all appliances for lighting and ventilation, as well as for experimentation in pure and applied chemistry; a laboratory for advanced work in chemical research, and the private laboratory of the Professor of General Chemistry. The top floor contains the private laboratory of the Professor of Analytical Chemistry, and large laboratories for qualitative and quantitative analysis, together with a balance room, a room for work with noxious gases, and a library. All the laboratories are provided with the usual appliances, as well as with lines conveying steam, compressed air, and suction, to the various desks, and oxygen and other gases to appropriate working tables. The ventilation throughout is by forced draft.

The Laboratory of the Department of Geology and the Geological Museum are located temporarily in the Hall of Philosophy. The collection numbers about 30,000 specimens, and the laboratory is equipped with machinery for cutting and polishing rocks and fossils.

The Laboratory of the Department of Physics occupies three floors in Charles Butler Hall. The laboratory of tests is in the Engineering Building. They are equipped with the usual apparatus, and are sufficiently large to allow the individual student space for any original investigations.

The Laboratory of Biology occupies the entire second floor of the Green Laboratory building and is equipped with a small vivarium, the necessary microscopes and microtomes, and supplied with abundant material for the work in this department.

COURSE OF STUDY

General Rules

Upon admission to the Freshman class the student must enter that section of the class for which he has passed the entrance requirements. A student who has completed the prescribed courses of Section A becomes a candidate for the degree of Bachelor of Arts upon the completion of any major, two minors and a sufficient number of free electives to bring the total number of credits up to 126. He may at his option become a candidate for the degree of Bachelor of Science by choosing a major from the Exact and Natural Science Group.

A student who has completed the prescribed courses of Section B becomes a candidate for the degree of Bachelor of Science upon the completion of any major, two minors and a sufficient number of free electives to bring the total number of credits up to 126.

Each student must enroll for not less than 15, nor more than 18 credits each semester.

PREScribed SUBJECTS

The following subjects (sixty credits in Section A and fifty-four credits in Section B) are prescribed for all students in the two Sections respectively, and with the exceptions noted on p. 50 must be completed by the end of the Sophomore year: English 1, 2=6 credits; either French or German 3, 4 or 5, 6 and 7, 8=12 credits; Mathematics 1, 2 or 3, 4=6 credits; Philosophy 1, 2=6 credits; History 1, 2=6 credits; either Physics 1, 2 or 3, 4 or Chemistry 1A, 3A, 2A, 4A, or 1, 3B, 2, 4B=6 credits; either Biology 1, 2 or Geology 1, 2=6 credits; Public Speaking 2=1 credit; Personal Efficiency=1 credit and Physical Training 1, 2, 3, 4=4 credits.

And in addition for Section A, either Latin or Greek 1, 2=6 credits.

NOTE: The alternative ancient Language may be offered in Section A in place of 6 of the 12 credits in modern language.

MAJOR AND MINORS

A *major* will consist of eighteen credits in sequential courses (normally three credits per semester for three years), and a graduation thesis in one department. The choice of a *major* must be made before the end of the Sophomore year and the *major* must be continued through the Junior and Senior years.

Each minor will consist of twelve credits (normally three credits per semester for two years), in one department.

The first minor may be chosen in any department other than that of the major, the second minor must be chosen from another group than that of the major, and two minors may not be taken in one department.

A statement of the courses constituting majors and minors in each department will be found under the heading "Description of Courses" for that department. Any change from one major or minor to another must receive the prior approval of the Scholarship Committee and will be permitted only upon the distinct understanding that all the courses prescribed in the major finally chosen shall be completed before graduation.

The more important departments of instruction are classified in three groups as follows:

GROUP I	GROUP II	GROUP III
Language and Literature	Social Science and Philosophy	Exact and Natural Science
Greek	History	Mathematics
Latin	Political Science	Physics
English	Economics	Chemistry
German	Sociology	Biology
French	Philosophy	Geology
Spanish		

Subjects open to student election but not included in the above classification may be chosen as free electives.

FREE ELECTIVES

Courses not taken as prescribed courses and not included in the student's major and minor sequences may be chosen as free electives to complete the 126 credits required for graduation, provided that the prerequisites have been passed. First year courses in a foreign language will not be accepted for credit towards a degree unless followed by a second-year course in the same language with the exception that credit may be given, with the approval of the head of the department, for a year of elementary Spanish.

Special Advisers

In making his choice of courses the student must consult his Special Adviser and must elect such studies as manifestly will be profitable to him.

After matriculation each student is assigned to a member of the Faculty who is to act as his Special Adviser during the Freshman and Sophomore years. Before the beginning of the Junior year, when the student signifies his choice of a major, he will be assigned to a member of professorial rank of the department of his major, who will act as his Special Adviser and upon whose advice and with whose consent he will select his studies for the remainder of his course.

Senior Electives

Seniors receiving special permission of the Faculty may elect as part of their required work certain of the courses of instruction in the Graduate School, School of Pedagogy and School of Commerce, Accounts and Finance.

A course so taken will be counted as part of the required work for the degree of bachelor, but not as part of the preparation for the degree of Master or Doctor. In the announcements of the Graduate School every course open to election by Seniors under this rule is marked with an asterisk.

Students who may have completed 96 credits of college work may elect for their senior year the following arrangement.

1. Not less than three credits each term, which must include the Senior courses of the major besides the time required for the Bachelor's Thesis.

2. In place of other work in the University College, the first year's work of either the University Medical College, the University Law School, the University School of Pedagogy, or any one of the Theological Seminaries represented in the University Senate may be pursued.

Upon the completion of the required college work to the satisfaction of the Faculty, and the presentation of a certificate from the Faculty of one of the professional schools above named testifying to the completion of the first year's course of the school, the candidate will be eligible for the Bachelor's Degree.

Students under twenty-one years of age must bring the written request of parents or guardians in order to obtain permission to elect the first year of a professional school, as a part of the fourth year of the undergraduate course.

It is strongly urged that students should plan to give their entire fourth year to college work proper, unless exceptional attainments and maturity of age make professional study advisable.

NOTE: Students who expect to avail themselves of this privilege should so arrange their choice of studies that they may complete their two minors by the end of the Junior year.

The Committee on Scholarship, acting under the instructions of the Faculty, may allow modifications in the details of the above regulations in exceptional and meritorious cases.

Classification of Students

All students will be ranked in the several classes as follows:

Freshmen—Those having less than 26 credits.

*Sophomores—Those having 26 to 57 credits, inclusive.

Juniors—Those having 58 to 90 credits, inclusive.

Seniors—Those having 91 to 126 credits, inclusive

*All entrance conditions must be removed before promotion to Sophomore standing.

HONORS SYSTEM

1. A student may become a candidate for Honors in his major subject.
2. Candidacy must be announced after the end of the Sophomore year and before the beginning of the Junior year. The student must have attained a grade of A or B in all courses thus far taken in the department chosen for his major, and shall not have attained a grade lower than C in more than one course of his first two years.
3. If, during the progress of the Honors study, the Candidate receives more than one grade below B for courses included in the Honors series, he thereby ceases to be a candidate for Honors. He may proceed toward his degree in the usual way, except that any course credit given for collateral reading already accomplished, as specified below, shall be placed against the requisite number of free elective units; and thereafter no such reading shall replace any such electives required to complete his 126 semester hours.
4. The candidate shall, in addition to passing with high grades the regular courses included in his major and two minor series, take certain extra work involving reading or other independent study. A specific statement of the reading required and of the nature and amount of other work demanded, signed by the head of the department in which Honors are sought, must be filed by the candidate with the Recorder at the beginning of each year of study for Honors. This work will be given 3 hours per week semester credit in lieu of part of the free elective courses of the Junior and Senior years, and will require at least 10 hours per week of the student's time.
5. No courses anticipated by admission to advanced standing may be counted in the Honors series.
6. At the end of each term a preliminary written examination will be held covering the Honors reading of that term. At the end of the Senior year a final examination, a part of which at least shall be oral, must be taken, covering the entire ground of the Honors Series. It shall be given by a committee composed of the professorial members of the department concerned, with such other members of the faculty as may be designated by the head of the major department with the approval of the Dean.
7. The thesis must be of a grade of A or B.
8. Honors are conferred by vote of the Faculty upon the successful completion of the Honors course and when so conferred will be printed upon the Commencement program and entered upon the students' diploma

Temporary rules for 1914-15

Special regulations for students for the year 1914-1915, who have completed one or more years under the old curriculum.

1. Regulations for Sophomores of the Class of 1917.

The successful completion of either Section A or B under the old curriculum will be accepted as a full equivalent for the new Freshman Section A, and the old Section C will be accepted for the new Freshman Section B.

Credits received for the completion of old Sections A, B or C will be regarded as the equivalent of 34 credits under the new curriculum.

Six credits only, in any one of the four sciences, will be required to complete the prescribed courses in Science.

In all other respects, the new curriculum is to be followed.

2. Regulations for Juniors of the Class of 1916

Completion of all courses of the Freshman year of any section and of the Sophomore year of any group under the old curriculum will be accepted as full equivalent for all prescribed courses and for the electives of the first two years under the new curriculum and will be regarded as equivalent to 66 credits.

The Junior must choose a major in a department in which he has already completed the first two courses, or their approximate equivalents, of the major series.

He must choose two minors, the first two courses of which, in each case, may have been already completed or he may begin either or both of the minors in the Junior year.

With the above exceptions, the new curriculum will be followed for the Junior and Senior years.

3. Regulations for Seniors of the Class of 1915

Completion of the Freshman year of any section and of the Sophomore and Juniors years of any group under the old curriculum will be accepted as full equivalent for all prescribed courses and for electives of the first three years under the new curriculum and will be regarded as equivalent to 96 credits.

The Senior must choose as his major, a subject which he has pursued throughout his Sophomore and Junior years and complete that major by taking at least three credits per semester, approved by the head of the department, in advanced courses in his major subject. He must choose two minors which, if not already completed, must be completed during the Senior year. He must elect in all 15 credit hours per semester and must present a satisfactory thesis in the department of his major subject.

Modification of the above regulations may be made in exceptional cases by the Scholarship Committee.

OUTLINE OF COURSES

FRESHMAN YEAR

September-June Division

Section A

<i>First Term</i>	<i>Credits</i>	<i>Second Term</i>	<i>Credits</i>
Latin 1 }	3	Latin 2 }	3
or		or	
Greek 1 }		Greek 2 }	
English 1.....	3	Public Speaking 2.....	1
Mathematics 1 or 3.....	3	English 2.....	3
Other Language.....	3	Mathematics 2 or 4.....	3
Elective.....	3	Other Language.....	3
Physical Training 1.....	1	Elective.....	3
Physical Training 5.....	1	Physical Training 2.....	1
	17		17

Section B

English 1.....	3	English 2.....	3
Modern Language.....	3	Public Speaking 2.....	1
Mathematics 3.....	3	Modern Language.....	3
Physics 1 or		Mathematics 4.....	3
Chemistry 1A, 3A or 1, 3B } ..	3	Physics 2 or	
Elective.....	3	Chemistry 2A, 4A or 2, 4B } ..	3
Physical Training 1.....	1	Elective.....	3
Physical Training 5.....	1	Physical Training 2.....	1
	17		17

Students who present for admission equivalents for prescribed courses in the departments of French and German may substitute for those prescribed courses equal credits from the list of Freshman electives given below, subject to examinations for such advanced credit at the option of the departments concerned.

List of Freshman Electives, Section A and B

Greek 1, 2	Mathematics 3, 4
Latin 1, 2	Chemistry 1A, 3A, 2A, 4A or 1, 3B,
French 1, 2, 3, 4, 5, 6	2, 4B
German 1, 2, 3, 4, 5, 6	Physics 1, 2
History 1, 2	

*Section C***MEDICAL PREPARATORY COURSE***General Statement*

Requirements for admission to the University and Bellevue Hospital Medical College of New York University include one year of college work in addition to graduation from an approved four-year high school course or its equivalent. This year of college work must include courses in Physics, Chemistry, and Biology. To meet this requirement the University College offers a Medical Preparatory Section in its Freshman year which includes these required subjects, the certificate of completion of which entitles the student to admission to the Freshman Class of the Medical College.

This course is offered in two divisions; the first, for those completing their secondary preparation in June, will extend throughout the regular college year from September to the following June, the second, for those completing their high school course or its equivalent in January, will extend from February 1 to September 25, 1915. A student who is prepared for college at the middle of the year will thus be enabled to enter the Medical School the following October and save one year's time in the preparation for his profession.

Admission

For requirements for admission to the Medical Preparatory Year (Section C of the Freshman Class) see p. 13.

Matriculation

Matriculation and registration will follow the general regulations printed on p. 35 except that students entering the February-September division may matriculate and register at any time during the week preceding the opening of the term.

Fees

For regulations concerning the amount and times of payment of tuition and other fees see p. 24.

Calendar

The dates of beginning and ending the college year, the vacations and the holidays of the first (September-June) division will be the same as those of the regular college year, as printed on p. 36.

The second (February-September) division will begin on February 1 and will continue to September 25, with the following holidays and vacations: April 1-3 inclusive, Easter recess; May 30, Memorial Day; June 7-12, Commencement recess, and July 4, Independence Day.

FRESHMAN YEAR

Section C

MEDICAL PREPARATORY COURSE

September-June Division

<i>First Term</i>		<i>Second Term</i>	
English M1	3	English M2	3
German M3 }	3	German }	3
or		or	
French M3 }	3	French }	3
Physics M1	4	Physics M2	4
Chemistry 1,3 C.....	4	Chemistry 2, 4C.....	4
Biology M1.....	4	Biology M2.....	4
Physical Training 3 hours to count		Physical Training 3 hours to count	
as 1.....	1	as 1.....	1
<hr/>		<hr/>	
19		19	

A student who has completed Section C, the Medical Preparatory course of the Freshman year, and who desires to pursue the college course before taking up his professional studies is admitted to the Sophomore class and becomes a candidate for the degree of Bachelor of Science upon the completion of the requirements for graduation with such modifications as may be approved by the committee on Scholarship.

FRESHMAN YEAR

February-September Division

Sections A. B. and C

New York University, in order to meet the needs of the large and increasing body of High School students who are graduated at the middle of the school year, established in 1913 a February-September Division of the Freshman class in the School of Applied Science and in the Medical Preparatory section of the Freshman class of the University College.

The success of this new departure has been such that beginning with the year 1914 the University will offer *all* the regular courses of the Freshman year of the University College to those who desire to enter in February and who meet the admission requirements. (For School of Applied Science Course see Applied Science Bulletin.)

These courses, for the year 1915, will extend from February 1 to September 25. Their successful completion will enable students admitted in February to enter, with full standing, the Sophomore class of the University College in the fall of the same year, or upon completion of the Medical Preparatory section to enter in October the first year of the University and Bellevue Hospital Medical School. Students who avail themselves of the opportunity offered by these February-September courses will be able to save one year's time in preparation for the college degree, or for the medical profession.

Schedule of Courses

The entire work of Sections A, B, and C of the September-June division of the Freshman class (see above) will be repeated in the February-September division. The capital A prefixed to an odd numbered course signifies that it will be given during the February-June term; prefixed to an even numbered course that it will be given during the June-September term. (See Description of Courses.)

Section A and B

SOPHOMORE YEAR

(Prescribed subjects must be completed by the end of the Sophomore year, with the exception that in Section A 6 credits in one science and 6 credits in Philosophy, and in Section B 6 credits in Philosophy, may be deferred to the Junior year.)

Physical Training 3, 4—2 credits.

At least 15 credits each term from the list of Sophomore subjects given below:

Greek 1, 2, 3, 4	Economics 1, 2
Latin 1, 2, 3, 4, 13	Mathematics 3, 4, 5, 6
English 3a, 4a, 5, 6,	Chemistry 1A, 3A, 1, 3B, 2A, 4A, 2,
Public Speaking 3, 4	4B, 5, 6
French 1, 2, 3, 4, 5, 6, 7, 8	Physics 1, 2, 3, 4
German 1, 2, 3, 4, 5, 6, 7, 8,	Biology 1, 2
Philosophy 1, 2	Geology 1, 2
History 1, 2	

TWO-YEAR MEDICAL PREPARATORY COURSE

The Faculty of the University College offers a Two-Year Medical Preparatory Course for the benefit of those who desire a broader cultural foundation for their professional studies. Upon the completion of the Freshman year, Section C, as described above, the student may elect for his second or Sophomore year the following schedule:

<i>First Term</i>	<i>Credits</i>	<i>Second Term</i>	<i>Credits</i>
Chemistry 5	3	Chemistry 6	3
or		or	
Biology 3		Biology 4	
French 7	3	French 8	3
or		or	
German 7		German 8	
History 1	3	History 2	3
or		or	
Philosophy 1		Philosophy 2	
Phys. Train. 3	1	Phys. Train. 4	1

And sufficient credits from the list of electives open to Sophomores to bring the total number of credits up to at least sixteen each term.

JUNIOR AND SENIOR YEARS

The requirements of the Junior and Senior years are the completion of one major and two minors, a graduation thesis and the election from subjects not already taken and credited of a sufficient number of credits to bring the number of credits each term to a total of 15.

FOUR-YEAR COMMERCIAL COURSE

New York University, recognizing the need and the demand for a college course that will prepare young men for responsible positions in the business world and at the same time conserve the advantages of a regular and typical college course, will offer for students entering the Freshman class of the University College in September, 1914, and thereafter, a full four-year curriculum in commerce leading to the baccalàureate degree.

The course will be an integral part of the work of the University College under the control of the Dean and Faculty. The requirements for admission will be the same as for Sections A or B of the Freshman class and the students of the Commerce Course will be incorporated into the regular classes of the University College under the general rules of its Faculty.

The curriculum of the Freshman and Sophomore years will be in general that of Sections A or B of the regular college course with the exception that certain courses fundamental to the later specialized work in Commerce, such as Economics, Economic History and Accounting, will be begun in the Sophomore year.

The courses of the Junior and Senior years will be devoted to subjects designed for preparation for a commercial life. In addition to subjects primarily technical which will form the major part of the work of these two years, courses primarily cultural rather than professional, but which have a special bearing upon commercial, financial, and industrial prob-

lems, such as Advanced Economics, Economic Geology, Commercial Geography, Government and Politics, will constitute a minor portion of the work of those years.

A full outline of this four-year commercial course will be published in the next (1915-16) Bulletin of the University College.

For further information address the Dean of the University College, University Heights, New York City.

DESCRIPTION OF COURSES

(Odd numbers used without preceding capitals signify first and even numbers second semester courses of the regular September-June college year. Odd numbers preceded by a capital A are used to designate first term (February-June) courses and even numbers preceded by a capital A to designate second term (June-September) courses of the February-September year. A capital M preceding the number is used to designate courses which are primarily for medical-preparatory students. A small letter in italics following the number designates a section or division of a course. The small letter *x* in italics signifies a division intended for both College and School of Applied Science students.)

GREEK

1a. Elementary Greek. (Prerequisite: Fulfillment of entrance requirement in Latin.) For such Freshmen and Sophomores as did not offer Greek for admission. Intended to meet in part the requirements for course I and to enable the student by outside study to meet those requirements in full by the beginning of his second semester. Grammar, prose exercises, and Xenophon's *Anabasis*. 3 credits. First Term. PROFESSOR WATERS.

2a. A continuation of the preceding. 3 credits. Second Term.

PROFESSOR WATERS.

1. Xenophon and Lysias. (Prerequisite: Fulfillment of entrance requirements in Greek.) Particular study of Attic vocabulary and grammar. 3 credits. First Term. PROFESSOR WATERS.

2. Plato. (Prerequisite: Greek 1). *Apology* and *Crito*, with selections from other dialogues. Lectures on the History of early Greek Literature. 3 credits. Second Term. PROFESSOR WATERS.

A1. Same as 1. 3 credits. February-June Term. Mr. ———

A2. Same as 2. 3 credits. June-September Term. Mr. ———

3. Aeschylus and Sophocles. (Prerequisite: Greek 1, 2.) Study of the Attic Drama. History of Greek Literature in the Fifth Century. 3 credits. First Term. PROFESSOR WATERS.

4. Euripides and Aristophanes. (Prerequisite: Greek 3.) Selected plays; study of the social and political relations in the second half of the fifth century. 3 credits. Second Term. PROFESSOR WATERS.



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5. Homer. (Prerequisite: Greek 3, 4.) Selected parts of the *Iliad*, with study of Homeric life. 3 credits. First Term. PROFESSOR WATERS.

6. Homer and Herodotus. (Prerequisite: Greek 5.) Selected parts of the *Odyssey*, and the History of Herodotus, with study of related material. 3 credits. Second Term. PROFESSOR WATERS.

7. Demosthenes, and Modern Greek. (Prerequisite: Greek 3, 4.) Selected speeches from the orator. Study of the development of Greek prose in oratory and conversation. 3 credits. First Term. PROFESSOR WATERS.

8. Thucydides, and Inscriptions. (Prerequisite: Greek 7.) Episodes in the Peloponnesian War. Selected readings in Plutarch and Lucian. Historical Inscriptions. 3 credits. Second Term. PROFESSOR WATERS.

Courses 5, 6 and 7, 8 are given in alternate years. Courses 5, 6 will be given in 1914-15.

Major: 3, 4, 5, 6, 7, 8.

Minor: 1, 2, 3, 4.

New Testament

1. History of the Gospel and of the Acts of the Apostles. This course is planned for those wishing to study the sources of the life of Jesus and to obtain a synoptic view of his ministry and his sayings, followed by a review of the history of the earliest beginnings of the church. 2 credits. First Term.

2. The Epistles and Revelation. Study of the progress of doctrine and discipline in the apostolic period. 2 credits. Second Term.

LATIN

1. Cicero, Second or Fifth *Philippic*. Syllabus of the more idiomatic points of Latin Syntax. Practice in writing Latin. 3 credits. First Term. PROFESSOR SIHLER AND MR. BARRANCO.

2. Livy, Book I or XXII; Horace, *Odes*. (Prerequisite: Latin 1.) Translation at sight from English into Latin. Practice in writing and speaking Latin. 3 credits. Second Term. PROFESSOR SIHLER AND MR. BARRANCO.

A1. Same as 1. 3 credits. February-June Term. MR. BARRANCO.

A2. Same as 2. 3 credits. June-September Term. MR. BARRANCO.

3. Pliny, *Letters*; Terence, one or two plays; Cicero, *de Officiis*. (Prerequisite: Latin 2.) Practice in speaking and writing Latin. 3 credits. First Term. PROFESSOR SIHLER.

4. Horace, *Satires*; Lecture Course, Juvenal or Persius, selections. Tacitus. (Prerequisite: Latin 3.) Practice in speaking and writing Latin. 3 credits. Second Term. PROFESSOR SIHLER.

5. Cicero, *De Finibus*; Tacitus, *Annals*, or Quintilian, Book X. (Prerequisite: Latin 4.) Practice in speaking and writing Latin. Latin discourse

on selected epochs of Roman history. Latin syllabus. 3 credits. First Term. PROFESSOR SIHLER.

6. Horace, *Epistles*; or a play of Plautus. Lecture Course. (Prerequisite: Latin 5.) 3 credits. Second Term. PROFESSOR SIHLER.

7. Justinian, with Latin quizzes, or Cicero, *de Oratore*. (Prerequisite: Latin 4.) 3 credits. First Term. PROFESSOR SIHLER.

8. Suetonius or Seneca; Velleius. (Prerequisite: Latin 7.) 3 credits. Second Term. PROFESSOR SIHLER.

(Courses 5, 6 and 7, 8 are given in alternate years; Courses 7, 8, will be given in 1914-15.)

10. Biography of Cæsar, lectures on the Decline and Fall of the Roman Republic. 1 credit. Second Term. PROFESSOR SIHLER.

(A knowledge of Latin is not a prerequisite for this course.)

13. Sight reading and Latin speaking. (Prerequisite: Latin 2.) 2 credits. First Term. PROFESSOR SIHLER.

Major: Latin 3, 4, 5, 6, 7, 8.

Minor: Latin 1, 2, 3, 4.

ENGLISH

Composition and Literature

1. Rhetoric and Composition. Study of the principles of composition, themes. Individual criticism, with conferences. Readings in modern literature. 3 credits. First Term.

ASSISTANT PROFESSOR NASON, DR. TONSOR, MR. BRIGGS, MR. FOSTER, MR. HOLMES, AND MR. ———

A1. Same as 1. 3 credits. February-June Term.

2. English Composition. Practice mainly in exposition and narration, and in letter writing. Individual criticism. Readings in modern literature. 3 credits. Second Term.

MR. HOLMES, AND MR. ———

A2. Same as 2. 3 credits. June-September Term.

ASSISTANT PROFESSOR NASON, DR. TONSOR, MR. BRIGGS, MR. FOSTER,

3a. Composition and Literature. (Prerequisites: English 1 and 2.) Studies in Victorian prose writers, including Macaulay, Carlyle, Ruskin, and Arnold. Practice in literary composition with especial attention to the gathering and organization of material. Conferences. 3 credits. First Term. PROFESSOR BOUTON.

4a. Composition and Literature. (Prerequisites: English 1, 2, and 3.) Continued studies in later Victorian and contemporary prose writers, including Pater, Stevenson, Chesterton, H. G. Wells. Practice in literary composition. Conferences. 3 credits. Second Term. PROFESSOR BOUTON.

5. History of English Literature. A view of the progress of English lit-

erature from the Old English period to the close of the Shakespearian period with a presentation of its chief facts in their relation to social and literary tendency. Readings. 3 credits. First Term. PROFESSOR BOUTON.

6. History of English Literature (continued). A continuation of Course 5 from the early 17th century to the Victorian period. Readings. 3 credits. Second Term. PROFESSOR BOUTON.

7. American Literature. (Prerequisites: English, 1, 2, 5, 6.) The development of American Literature, and its relations to British and Continental Literature. The writers of the Colonial and Revolutionary Periods, and Irving, Bryant, Cooper, and Poe. Readings. 3 credits. First Term.

ASSISTANT PROFESSOR NASON.

8. American Literature. A continuation of Course 7. Emerson, Whittier, Longfellow, Lowell, Holmes, Hawthorne, Whitman and Lanier. Readings. 3 credits. Second Term.

ASSISTANT PROFESSOR NASON.

9. Shakespeare. (Prerequisites: English 1, 2, 5, and 6.) Critical reading of one or more plays; study of the literary and dramatic method. 3 credits. First Term.

PROFESSOR ———.

10. Nineteenth Century Literature. (Prerequisites: English 1, 2, 5, and 6.) Literary and historical study of the literature, on the basis of Stedman's Victorian Poets; lectures; critical reading of selections. 3 credits. Second Term.

PROFESSOR ———.

11. The Essay. (Prerequisites: English 1, 2, 5, and 6.) General survey; study of selected examples from Bacon to Lamb. 3 credits. First Term.

PROFESSOR ———.

12. English Poetry (Prerequisites: English 1, 2, 5, and 6.) Study of selected masterpieces from Chaucer to Browning. 3 credits. Second Term.

PROFESSOR ———.

13. Development of the Drama (Prerequisites: English 1, 2, 5, and 6.) Study of the theory of the drama and of the history of its development, on the basis of Freytag's "The Technique of the Drama," and of Moulton's "Ancient Classical Drama." 3 credits. First Term.

PROFESSOR ———.

14. History of the English Language, together with a study of the growth of the English Vocabulary and of the Development of English Grammar. (Prerequisites: English 1, 2, 5, and 6.) 3 credits. Second Term.

PROFESSOR ———.

(Courses 11, 12 and 13, 14 are given in alternate years; Courses 11, 12 will be given in 1914-15.)

15. Old English. (Prerequisites: English 1, 2, 5, and 6.) Reading of simple prose; study of Old English literature and grammar; lectures on the history of the English language. 3 credits. First Term.

PROFESSOR ———.

16. Chaucer. (Prerequisites: English 1, 2, 5, and 6.) Literary study of the *Canterbury Tales*, with some examination of the chief contemporaries and predecessors of Chaucer. 3 credits. Second Term.

PROFESSOR ———.

A major will consist of English 5 and 6 with 12 additional credits to be chosen with the counsel of the head of the department from Courses 3a and 4a, 9 and 10, 11 and 12, 13 and 14, 15 and 16.

A minor will consist of English 5 and 6 with 6 additional credits similarly chosen from the courses named.

Public Speaking

2. Oral Interpretation. Interpretation of selected masterpieces of oratory, with special attention to the use and control of the breath, voice production, enunciation, and gesture; together with a study of defects of voice or manner, that tend to lessen the effectiveness of conversation. 1 credit. Second Term.

MR. BRIGGS.

A2. Same as 2. 1 credit. June–September Term.

MR. BRIGGS.

3. Forms of Public Address. (Prerequisites: Public Speaking 2, English 1 and 2.) Inductive study of the work of successful public speakers. The composition and delivery of original speeches. 1 credit. First Term.

DR. TONSOR.

4. Forms of Public Address (continued). The practice of public speaking in connection with significant topics of current interest. 1 credit. Second Term.

DR. TONSOR.

5. Argumentation and Debate. (Prerequisites: Public Speaking 2, English 1 and 2.) The development and composition of a forensic. Class-room debates and discussions. Research in important problems of contemporary interest. Individual criticism. 2 credits. First Term.

DR. TONSOR.

6. Extemporaneous Speaking—(Prerequisites Public Speaking 2, English 1 and 2). Persuasive adaptation; oral composition. The oration; the technique of its composition and delivery. Individual criticism. 2 credits. Second Term.

DR. TONSOR.

GERMAN

1. Elementary Course. The pronunciation, accidence, and the simpler rules of syntax, with the reading of easy prose and the translation of short sentences into German. Storm's *Immensee*, Hillern's *Höher als die Kirche*, Gerstäcker's *Germelshausen*, and Carmen Sylva's *Aus meinem Königreich*. The basis of the study of grammar is Prokosch's German Grammar. 3 credits. First Term.

MR. WHYTE.

2. Elementary Course (continued.) (Prerequisite: German 1.) The accidence, the more common rules of syntax, the memorizing of the more important idioms, with the reading of easy prose, and practice in writing

easy sentences in German. Wilbrandt's *Jugendliebe*, Benedix's *Die Hochzeitsreise* and *Der Prozess*, and Fulda's *Unter vier Augen*. 3 credits. Second Term. MR. WHYTE.

A1. Same as 1. 3 credits. February-June Term. MR. _____

A2. Same as 2. 3 credits. June-September Term. MR. _____

3. Course in Narrative Prose. (Prerequisite: Two years of German or equivalent.) The reading of selected narrative prose, the study of word-formation and syntax, the memorizing of idioms, and translation of easy English prose into German. Wildenbruch's *Das edle Blut*, Saar's *Die Steinklopfer*, Eichendorff's *Aus dem Leben eines Taugenichts*, Keller's *Kleider machen Leute*. Pope's German Prose Composition. Lectures upon German customs and manners. 3 credits. First Term. MR. WHYTE.

4. Course in the German Novel. (Prerequisite: Course 3 or equivalent.) The reading of some representative German novels, discussion of some of the easier problems of literary structure, the study of the more difficult idioms and points of syntax, and the writing of simple themes in German. Hauff's *Lichtenstein*, Freytag's *Soll und Haben*, Ludwig's *Zwischen Himmel und Erde*, and Sudermann's *Frau Sorge*. Lectures on the history of German literature. 3 credits. Second Term MR. WHYTE.

A3. Same as 3. 3 credits. February-June Term. MR. _____

A4. Same as 4. 3 credits. June-September Term. MR. _____

M3. Same as 3. 3 credits. First Term. MR. WHYTE AND MR. SCHOLZ.

M4. Same as 4. 3 credits. Second Term. MR. WHYTE AND MR. SCHOLZ.

AM3. Same as 3. 3 credits. February-June Term.
MR. _____ AND MR. _____

AM4. Same as 4. 3 credits. June-September Term.
MR. _____ AND MR. _____

(Courses 3 and 4 are designed for students presenting Elementary German at entrance.)

5. Course in Historical Prose. (Prerequisite: Three years of German or equivalent.) The reading of graded historical prose, continued study of word-formation and syntax, sight reading, and the translation of English prose into German. Schiller's *History of the Thirty Year's War*, Schönfeld's *German Historical Prose*, and von Sybel's *Die Erhebung Europas gegen Napoleon I.* Pope's German Prose Composition. Lectures on German literature and history. 3 credits. First Term. MR. WHYTE.

6. Course in the German Classical Drama. (Prerequisite: Course 5 or equivalent.) The reading of some of the classical dramas of Lessing, Goethe, and Schiller, the study of their dramatic structure according to the principles laid down in Freytag's *Die Technik des Dramas*, and the writing of themes. Lessing's *Emilia Galotti* and *Nathan der Weise*, Goethe's *Iphigenie* and *Tasso*, Schiller's *Die Jungfrau von Orleans* and *Die Braut von Messina*. Lectures on the history of German literature. 3 credits. Second Term.

MR. WHYTE.

A5. Same as 5. 3 credits. February-June Term. MR. _____

A6. Same as 6. 3 credits. June-September Term. MR. _____

(Courses 5 and 6 are designed for students presenting Intermediate German at entrance.)

7. Course in Modern German Epics. (Prerequisite: Course 4 or equivalent.) The reading of Goethe's *Hermann und Dorothea*, of selections from Voss's *Luise* and from Wieland's *Oberon*, and of Scheffel's *Der Trompeter von Säckingen*. Lectures on the history of German literature. 3 credits. First Term. PROFESSOR McLOUTH.

8. Course in the German Drama of the Nineteenth Century—(Prerequisite: Course 7.) The reading of Grillparzer's *Sappho* and *Der Traum ein Leben*, Hebbel's *Judith* and *Die Nibelungen*, and Richard Wagner's *Tannhäuser* and *Die Meistersinger*, some consideration of Hebbel's theory of the drama, and the writing of themes. Lectures on the history of German literature. 3 credits. Second Term. PROFESSOR McLOUTH.

9. Course in German Lyric Poetry. (Prerequisite: Course 8 or equivalent.) The reading of selections from the works of the most famous lyric poets of Germany from the period of the Reformation to the present time, including the *Volkslied*, some consideration of the music composed for the most celebrated of these poems, the comparison of some of the best English translations, and the writing of themes. Goebel's Goethe's Poems, Nollen's Schiller's Poems, White's Heine's Poems, Hewett's Poems of Uhland, and Klenze's *Deutsche Gedichte*. Lectures on the history of German literature. 3 credits. First Term. PROFESSOR McLOUTH.

10. Course in the "Storm and Stress" Period of German Literature. (Prerequisite: Course 8 or equivalent.) The study of Goethe's *Götz von Berlichingen* and *Werther*, Klinger's *Sturm und Drang* and Schiller's *Die Räuber*, references to the writings of Rousseau and Herder, readings in Francke's History of German Literature, and the writing of themes. Lectures on the history of German literature. 3 credits. Second Term. PROFESSOR McLOUTH.

11. Course in the German Romantic School. (Prerequisites: German 7, 8, 9.) Romantic beginnings: Tieck, Novalis, the Schlegel brothers; Brentano, Achim von Arnim, Görres. The reading of representative works, discussions, and lectures on the influence of Romantic ideas upon German literature and intellectual life. 3 credits. First Term. ASSOCIATE PROFESSOR WILKENS.

12. Course in the German Romantic School (continued.) (Prerequisite: German 11.) Romantic developments: Kleist, Fouqué, Hoffmann, Chamisso, Eichendorff, Heine. The reading of representative works, discussions, and lectures on the dissemination of Romantic ideals. 3 credits. Second Term. ASSOCIATE PROFESSOR WILKENS.

13. Course in German Conversation. (Prerequisite: Course 6, or equivalent.)

lent.) A systematic drill in the use of spoken German, based upon narrative texts to be selected by the instructor. 2 credits. First Term.

MR. _____

14. Course in German Conversation (continued). (Prerequisite: Course 13, or equivalent.) The oral treatment by the pupil of graded themes, together with discussions of assigned topics. Two credits. Second Term.

MR. _____

15. Course in Goethe's *Faust*, First Part. (Prerequisites: Courses 9 and 10 or 11 and 12, or equivalent.) The study and interpretation of the First Part of Goethe's *Faust*, lectures on the *Faust* legends, the genesis and the most important criticisms of the poem, some consideration of the *Faust-books*, the *Göckhausen Faust* and *Faust ein Fragment*, and the writing of themes. Thomas, *Goethe's Faust*, Part I. Schröer's *Faust von Goethe*. Bayard Taylor's *Faust: a Tragedy by Goethe*. 2 credits. First Term.

PROFESSOR McLOUTH.

16. Course in Goethe's *Faust*, Second Part. (Prerequisite: Course 15, or equivalent.) The study and the interpretation of the Second Part of Goethe's *Faust*, lectures on the genesis, the most important criticisms and the symbolism of the poem, and the writing of themes. Thomas's *Goethe's Faust*, Part II. Schröer's *Faust von Goethe*. Bayard Taylor's *Faust: a Tragedy by Goethe*. 2 credits. Second Term.

PROFESSOR McLOUTH.

17. The History of German Literature from the Gothic Period to the time of Klopstock. (Prerequisites: Courses 9 and 10, or 11 and 12, or equivalent.) Readings from Thomas's German Anthology I; recitations on Priest's History of German Literature; collateral reading; lectures; themes. 2 credits. First Term.

PROFESSOR McLOUTH.

18. The History of German Literature from the time of Klopstock to the Present. (Prerequisite: Course 17, or equivalent.) Readings from Thomas's German Anthology II; recitations on Priest's History of German Literature; collateral reading; lectures; themes. 2 credits. Second Term.

PROFESSOR McLOUTH.

(Courses 15, 16 and 17, 18 are given in alternate years; Courses 17, 18 will be given in 1914-15.)

Major: German 7, 8, 9, 10, or 11 and 12, 13, 14, 15, 16, or 17 and 18.

Minor: German 7, 8, 9, 10, or 11 and 12.

FRENCH

1. Elementary Course. Aldrich and Foster's *Foundation of French*, Elementary French Reader; dictation, exercises. 3 credits. First Term.

MR. SCHWARZ.

2. Grammar (continued). Syntax. Exercises in French Composition; translation of story or play. 3 credits. Second Term.

MR. SCHWARZ.

A1. Same as 1. 3 credits. February-June Term.

MR. HOLMES.

A2. Same as 2. 3 credits. February-June Term. MR. HOLMES.

3. French Grammar (Fraser & Squair's), Syntax and Prose Composition; selected modern writers; Erchmann-Chatrian, Halévy, etc. 3 credits. First Term. MR. SCHWARZ.

4. French Grammar (Fraser & Squair's), continued. Selected readings from modern authors: Souvestre, Mérimée, About, De Maistre. 3 credits. Second Term. MR. SCHWARZ.

(Courses 3 and 4 are designed for students presenting Elementary French at entrance.)

A3. Same as 3. 3 credits. February-June Term. MR. HOLMES.

A4. Same as 4. 3 Credits. June-September Term. MR. HOLMES.

M3. Same as 3. 3 credits. First Term.

MR. SCHWARZ AND MR. HOLMES.

M4. Same as 4. 3 credits. Second Term.

MR. SCHWARZ AND MR. HOLMES.

AM3. Same as M3. 3 credits. February-June Term. MR. SCHWARZ.

AM4. Same as M4. 3 credits. June-September Term. MR. HEATON.

5. Review of grammar. Prose Composition; Study of Syntax and Idioms. Chardenal's *Advanced French Exercises*. Readings from Hugo, Loti, Lamartine, etc. 3 credits. First Term. MR. HEATON.

6. Continuation of Course 5. 3 credits. Second Term. MR. HEATON.

A5. Same as 5. 3 credits. February-June Term. MR. HOLMES.

A6. Same as 6. 3 credits. June-September Term. MR. HOLMES.

(Courses 5 and 6 are designed for students who present Intermediate French at entrance.)

7. Reading of advanced texts. (Prerequisites: Courses 3 and 4 or 5 and 6.) Modern novels, poetry, and plays. Advanced French Composition. 3 credits. First Term. MR. HEATON.

8. Continuation of Course 7. 3 credits. Second Term. MR. HEATON.

9. Study and discussion of the more important periods and authors of French Literature, based on Ch.-M. des Granges' *Histoire de la Littérature française; Morceaux Choisis des Auteurs Français*. French conversation. (Prerequisites: Courses 7 and 8.) 3 credits. First Term.

PROFESSOR GILLETT.

10. French Literature in the Eighteenth Century. Faguet's *Etudes littéraires sur le dix-huitième siècle*. Collateral reading. French conversation. 3 credits. Second Term. PROFESSOR GILLETT.

11. French Literature in the Seventeenth Century. (Prerequisites: Courses 9 and 10.) Classic drama. Poets and prose writers. Discussion of critical works on authors of the period. 3 credits. First Term.

PROFESSOR GILLETT.

12. French Literature in the Sixteenth Century. Darmsteter and Hatz-

feld: *Le XVI^e Siècle en France*; Huguet's *Prosateurs du XVI^e siècle*; Lemer-
cier's *Chefs-d'œuvre des Poètes du XVI^e siècle*. 3 credits. Second Term.

PROFESSOR GILLETT.

SPANISH

1. Coester's Spanish Grammar. 3 credits. First Term.

PROFESSOR GILLETT.

2. Spanish Reading and Composition. 3 credits. Second Term.

PROFESSOR GILLETT.

3. Outline History of Spanish Literature. (Prerequisites: Courses 1 and
2.) Prose composition. Selected modern writers. 3 credits. First Term.

PROFESSOR GILLETT.

4. Critical readings from the authors of the classical period: Cervantes,
Lope de Vega, Calderon, etc. 3 credits. Second Term. PROFESSOR GILLETT.

Major: French 7, 8, 9, 10, 11, 12.

Minors: French 7, 8, 9, 10.

Spanish 1, 2, 3, 4.

PHILOSOPHY

1. Logic and Introduction to Philosophy. A study of formal logic, with
introduction to Theory of Knowledge. 3 credits. First Term.

PROFESSOR SHAW.

2. Psychology. A descriptive and explanatory study of consciousness.
3 credits. Second Term.

PROFESSOR SHAW.

3. Ethics. (Prerequisites: Philosophy 1, 2.) A contrast of the various
views of human life. 3 credits. First Term.

PROFESSOR SHAW.

4. Philosophy of Religion. (Prerequisites: Philosophy 1, 2.) A study
of the essence and character of religion. 3 credits. Second Term.

PROFESSOR SHAW.

5. History of Ancient Philosophy. (Prerequisites: Philosophy 1, 2, 3, 4.)
The development of ancient thought; readings from the classical thinkers
of antiquity. 3 credits. First Term.

PROFESSOR SHAW.

6. History of Modern Philosophy. (Prerequisites, Philosophy 1, 2, 3,
4.) The development of modern thought; readings from modern philosophy.
3 credits. Second Term.

PROFESSOR SHAW.

7. Systematic Philosophy. (Prerequisites: Philosophy 1, 2, 3, 4.) An
introduction to philosophy with a study of philosophic encyclopedia. 3
credits. First Term.

PROFESSOR SHAW.

8. Metaphysics. (Prerequisites: Philosophy 1, 2, 3, 4.) A study of the
world as appearance, activity, reality; readings from contemporary meta-
physics. 3 credits. Second Term.

PROFESSOR SHAW.

(Courses 5, 6 and 7, 8 will be given in alternate years; Courses 7, 8 will
be given in 1914-15.)

9. Aesthetics. (Prerequisites: Philosophy 1, 2, 3, 4.) The philosophy of art and the doctrine of beauty, with a discussion of the problem of culture. 2 credits. First Term. PROFESSOR SHAW.

10. Philosophy of Life. (Prerequisites: Philosophy 1, 2, 3, 4.) A study of individualism, with a discussion of the problem of selfhood and society. 2 credits. Second Term. PROFESSOR SHAW.

Major: 1, 2, 3, 4 and 5, 6, or 7, 8.

Minor: 1, 2, 3, 4.

HISTORY

1. Mediæval History. Europe from the Fall of the Roman Empire to the Reformation. 3 credits. First Term.

ASSISTANT PROFESSOR JONES.

2. Modern History. Europe from the Reformation to the Present Time. 3 credits. Second Term.

ASSISTANT PROFESSOR JONES.

5. Political and Constitutional History of England. (Prerequisites: History 1, 2.) 3 credits. First Term.

PROFESSOR BROWN.

6. Political and Constitutional History of England (continuation of Course 5). (Prerequisites: History 1, 2.) 3 credits. Second Term.

PROFESSOR BROWN.

7. Political and Constitutional History of the United States. (Prerequisites: History 1, 2.) 3 credits. First Term.

PROFESSOR BROWN.

8. Political and Constitutional History of the United States (continuation of Course 7). (Prerequisites: History 1, 2.) 3 credits. Second Term.

PROFESSOR BROWN.

(Courses 5, 6 and 7, 8 are given in alternate years; Courses 5 and 6 will be given in 1914-15.)

10. History of the Civil War and of Reconstruction. (Prerequisites: History 5, 6 or 7, 8.) 2 credits. Second Term.

PROFESSOR BROWN.

9. History of the French Revolution. (Prerequisites: History 1, 2.) 2 credits. First Term.

ASSISTANT PROFESSOR JONES.

[11. The Napoleonic Period. First Term.]

ASSISTANT PROFESSOR JONES.

Not given in 1914-15.

[13. Recent European History.] First Term.

ASSISTANT PROFESSOR JONES.

Not given in 1914-15.

[15. History of Christianity. First Term.]

Not given in 1914-15.

[16. History of Christianity. Second Term.]

Not given in 1914-15.

Major: History 1, 2, 5, 6, 7, 8, 9 or 11 or 13 and 10.

Minor: History 1, 2 and 5, 6 or 7, 8.

POLITICAL SCIENCE

1. American Government. Federal and State. 3 credits. First Term.
PROFESSOR BROWN.
 2. Governments of Modern Europe. (Prerequisite: Political Science 1.)
3 credits. Second Term. ASSISTANT PROFESSOR JONES.
 3. Municipal Government. (Prerequisite: Political Science 1, 2.) 3
credits. First Term. PROFESSOR BROWN.
 4. International Law. 3 credits. Second Term. PROFESSOR BROWN.
- Minor: Political Science 1, 2, 3, 4.

ECONOMICS

1. Principles of Economics. 3 credits. First Term. PROFESSOR CLAPP.
 2. Economic History of the United States. (Prerequisites: Economics
1.) 3 credits. Second Term. PROFESSOR CLAPP.
 3. Corporations, Trusts, and the Labor Problem. (Prerequisite: Econom-
ics 1.) 3 credits. First Term. PROFESSOR CLAPP.
 4. Money and Banking. (Prerequisite: Economics 1.) 3 credits. Sec-
ond Term. PROFESSOR JOHNSON AND PROFESSOR CLAPP.
 5. Transportation. (Prerequisite: Economics 1.) 3 credits. First Term.
PROFESSOR CLAPP.
 6. International Trade. (Prerequisites: Economics 1, 5. 3 credits. Sec-
ond Term. PROFESSOR CLAPP.
- (Courses 3, 4 and 5, 6 are given in alternate years. Courses 3, 4 will
be given in 1914-15.)
- Major: Economics, 1, 2, 3, 4, 5, 6.
Minor: Economics, 1, 2 and 3, 4 or 5, 6.

SOCIOLOGY

1. Principles of Sociology. 3 credits. First Term. PROFESSOR CLAPP.
2. Social Reform. (Prerequisite: Sociology 1.) 3 credits. Second Term.
PROFESSOR CLAPP.

MUSIC

1. Musical Appreciation. Lectures on the history of music, with expo-
sitions of the different musical forms, the sonata, the suite, the opera, the
oratorio, and the song. There will be detailed study of the classic masters,
Bach, Handel, Haydn, Mozart, Gluck, and Beethoven. Recitals illustra-
tive of the work will be given, and outside reading will be required. 2
credits. First term. MR. BIBB.
2. Continuation of 1. The Romantic and Classic-Romantic Schools,
Richard Wagner, and the Moderns, Strauss, Debussy, and others. 2 credits.
Second Term. MR. BIBB.

3. The Modern Opera. Lectures on the history of opera, and analyses of famous operatic works, with especial attention to "The Ring of the Nibelung" and the other music-dramas of Richard Wagner, in their musical, dramatic, and philosophical aspects. 2 credits. First Term. MR. BIBB.

4. Continuation of 3. The Modern Schools. MR. BIBB.

5. Elementary Harmony and Ear Training. 1 credit. First Term. MR. BIBB.

6. Continuation of 5. 1 credit. Second Term. MR. BIBB.

N. B. Courses 5 and 6 presuppose some musical training on the part of the student; the other courses require no special knowledge for entrance.

MATHEMATICS

1. Trigonometry. 3 credits. First Term,

ASSISTANT PROFESSOR THORNE, MR. BECKER AND MR. ———

A1. Same as 1. February-June Term. MR. BECKER.

2. Solid Geometry. 3 credits. Second Term. MR. BECKER AND MR. —

A2. Same as 2. June-September Term. MR. ———

3. Advanced Algebra. 3 credits. First Term. PROFESSOR EDMONDSON.

A3. Same as 3. February-June Term. MR. BECKER.

4. Analytic Geometry. (Prerequisite: Mathematics 1 or Entrance Trigonometry.) 3 credits. Second Term. PROFESSOR EDMONDSON.

A4. Same as 4. June-September Term. MR. ———

5. Calculus. (Prerequisite: Mathematics 5.) First Term, 4 credits. PROFESSOR EDMONDSON.

6. Calculus. (Prerequisite: Mathematics 6). Continuation of Course 5. 3 credits. Second term, PROFESSOR EDMONDSON.

7. Differential Equations. (Prerequisite: Mathematics 6). 3 credits. First term. ASSISTANT PROFESSOR THORNE.

8. Theoretical Mechanics. (Prerequisite: Mathematics 7.) 3 credits. Second Term. ASSISTANT PROFESSOR THORNE.

[9. Theory of Equations. (Prerequisite: Mathematics 6). 3 credits. First Term.] PROFESSOR EDMONDSON.

[10. Advanced Plane Analytic Geometry. (Prerequisite: Mathematics 6.) 3 credits. Second Term.] PROFESSOR EDMONDSON.

11. Solid Analytic Geometry. (Prerequisite: Mathematics 6.) 3 credits. First Term. PROFESSOR EDMONDSON.

12. Advanced Calculus. (Prerequisite: Mathematics, 6). 3 credits. Second Term. PROFESSOR EDMONDSON.

(Courses 9, 10 and 11, 12 are given in alternate years; Courses 11 and 12 will be given in 1914-15.)

Major: Mathematics 5, 6, 7, 8, and six hours from 9, 10, 11, 12.

Minor: Mathematics 4, 5, 6, and three hours from 7, 9, 10, 11, 12.

Freshmen presenting
for entrance:

Mathematics A, C
Mathematics A, C, D
Mathematics A, C, E
Mathematics A, C, D, E

must take:

Mathematics 1, and 2 or 4
Mathematics 1 and 4
Mathematics 3, and 2 or 4
Mathematics 3 and 4.

ASTRONOMY

[1. Descriptive Astronomy. Recitations and lectures. 3 credits. First Term.] PROFESSOR EDMONDSON.

[2. Descriptive Astronomy. A continuation of Course 1. 3 credits. Second Term.] PROFESSOR EDMONDSON.

(Astronomy 1 and 2 will not be given during 1914-1915.)

PHYSICS

1. General Physics. An elementary course in general physics; lectures, recitations, laboratory. 3 credits. First Term. MR. ———.

2. General Physics. Continuation of Physics 1. (Prerequisite: Physics 1 or its equivalent.) 3 credits. Second Term. MR. ———.

M1. General Physics for medical preparatory students. Lectures, recitations, 3 hours, and laboratory 2 hours weekly. 4 credits. First Term. PROFESSOR HERING, PROFESSOR ARNOLD, ASSISTANT PROFESSOR CAMPBELL, MR. HUNTER.

M2. General Physics for medical preparatory students. Lectures, recitations and laboratory, as in Physics M1. 4 credits. Second Term. PROFESSOR HERING, PROFESSOR ARNOLD, ASSISTANT PROFESSOR CAMPBELL, MR. HUNTER.

AM1. General Physics for medical preparatory students. Lectures and recitations. 2 credits. February-June Term. MR. ———.

AM2. General Physics for medical preparatory students. Lectures, recitations and laboratory. 6 credits. June-September Term. MR. ———.

3. Mechanics, Sound, Heat. Recitations and lectures. (Prerequisites: Algebra, plane geometry, plane trigonometry, Physics 1, or a half year of high school physics.) 3 credits. First Term.

ASSISTANT PROFESSOR CAMPBELL.

4. Magnetism, Electricity, Light. Recitations and lectures. (Prerequisite: Physics 2 or corresponding half year of high school physics.) 3 credits. Second Term. ASSISTANT PROFESSOR CAMPBELL.

7x. Laboratory work in Mechanics, Heat, and Sound. (Prerequisites: Physics 3 and Analytic Geometry.) 3 credits. First Term.

PROFESSOR HERING, ASSISTANT PROFESSOR CAMPBELL, MR. HUNTER

8x. Laboratory work in Sound, Electricity, and Light. (Prerequisites: Physics 4 and Analytic Geometry.) 3 credits. Second Term.

PROFESSOR HERING, ASSISTANT PROFESSOR CAMPBELL, MR. HUNTER.

9. Laboratory work in Mechanics, Heat, and Sound. (Prerequisite: Physics 3.) 1 credit. First Term. MR. HUNTER.

10. Laboratory work in Sound, Electricity, and Light. (Prerequisite: Physics 4.) 1 credit. Second Term. MR. HUNTER.

11. Advanced work in laboratory, with occasional lectures and a good deal of collateral reading. (Prerequisites: Physics 3, 5.) 3 credits. First Term. PROFESSOR HERING.

12. Advanced work in laboratory, continuation of Physics 11. (Prerequisites: Physics 4, 6.) 3 credits. Second Term. PROFESSOR HERING.

13. Advanced work in laboratory, with lectures and collateral reading. (Prerequisites: Physics 3, 7.) 1 credit. First Term. PROFESSOR HERING.

14. Advanced work in laboratory, with lectures and collateral reading. (Prerequisites: Physics 4, 8.) 1 credit. Second Term. PROFESSOR HERING.

CHEMISTRY

1A. Introductory General Chemistry. Introductory course in inorganic chemistry, for students not previously prepared in chemistry. To be accompanied by Chemistry 3A, or 3C. Two lectures and one quiz hour weekly. 2 credits. First Term. PROFESSOR HILL AND DR. MOORE.

2A. Introductory General Chemistry. A continuation of Chemistry 1A, to be accompanied by Chemistry 4A or 4C. Two lectures and one quiz hour weekly. (Prerequisite: High School Chemistry.) 2 credits. Second Term. PROFESSOR HILL AND DR. MOORE.

1. General Chemistry.' A study of the facts and theories of general chemistry, to be accompanied by chemistry 3B or 3D. Two lectures and one quiz hour weekly. 2 credits. First Term.

PROFESSOR HILL, DR. MOORE AND MR. HASELY.

2. General Chemistry. A continuation of Chemistry 1, to be accompanied by Chemistry 4B or 4D. Two lectures and one quiz hour weekly. 2 credits. Second Term. PROFESSOR HILL, DR. MOORE AND MR. HASELY.

3A. Experimental Chemistry. Elementary laboratory experimentation, for College Freshmen primarily, to accompany Chemistry 1A, without which it may not be taken. Two laboratory hours weekly. 1 credit. First Term. ASSISTANT PROFESSOR SIMMONS, MR. WEINIK, MR. HASELY, MR. AMON AND MR. BLUCHER.

4A. Experimental Chemistry. A continuation of Chemistry 3A, to accompany Chemistry 2A. Two laboratory hours weekly. 1 credit. Second Term.

ASSISTANT PROFESSOR SIMMONS, MR. WEINIK, MR. HASELY, MR. AMON AND MR. BLUCHER.

3B. Advanced Experimental Chemistry. Laboratory exercises on se-

lected topics, to accompany Chemistry 1 for College students. Two laboratory hours weekly. 1 credit. First Term. DR. FARNAU.

4B. Advanced Experimental Chemistry. A continuation of Chemistry 3B, to accompany Chemistry 2 for College students. Two laboratory hours weekly. 1 credit. Second Term. DR. FARNAU.

3C. Experimental Chemistry. Elementary laboratory experimentation, for Medical Preparatory, Civil Engineering and Mechanical Engineering Freshmen taking Chemistry 1A. Four laboratory hours weekly. 2 credits. First term.

ASSISTANT PROFESSOR SIMMONS, MR. WEINIK, MR. HASELY, MR. AMON AND MR. BLUCHER.

4C. Introductory Qualitative Analysis. A short course in Qualitative Analysis, for Medical Preparatory, Civil Engineering and Mechanical Engineering Freshmen taking Chemistry 2A. Four laboratory hours weekly. 2 credits. Second term.

ASSISTANT PROFESSOR SIMMONS, MR. WEINIK, MR. HASELY, MR. AMON AND MR. BLUCHER.

3D. Qualitative Analysis. First half of a year's course in Systematic Qualitative Analysis, for Medical Preparatory, Civil Engineering and Mechanical Engineering Freshmen taking Chemistry 1. Three laboratory hours weekly and one quiz hour. 2 credits. First Term.

ASSISTANT PROFESSOR SIMMONS, MR. WEINIK, MR. HASELY, MR. AMON AND MR. BLUCHER.

4D. Qualitative Analysis. A continuation of Chemistry 3D. Three laboratory hours weekly and one quiz hour. 2 credits. Second Term.

ASSISTANT PROFESSOR SIMMONS, MR. WEINIK, MR. HASELY, MR. AMON AND MR. BLUCHER.

5. Qualitative Analysis. First half of a complete course in Systematic Qualitative Analysis, for Chemical Engineering Freshmen and for College Sophomores electing a major series in chemistry. Seven laboratory hours and one quiz hour weekly. 3 credits. First term.

PROFESSOR HILL AND ASSISTANT.

6. Qualitative Analysis. A continuation of Chemistry 5, including study of the acid radicals, dry analysis, and spectroscopic analysis. Seven laboratory hours and one quiz hour weekly. 3 credits. Second Term.

PROFESSOR HILL AND ASSISTANT.

7. Quantitative Analysis. (Prerequisite: Chemistry 6.) Introductory laboratory course in volumetric and gravimetric analysis, with weekly conference. Laboratory 7 hours, quiz 1 hour. 3 credits. First Term.

ASSISTANT PROFESSOR SIMMONS.

8. Quantitative Analysis. A continuation of Chemistry 7. Laboratory seven hours, quiz 1 hour. 3 credits. Second Term.

ASSISTANT PROFESSOR SIMMONS.

9. Technical Quantitative Analysis. (Prerequisite: Chemistry 8.) Laboratory work in sanitary analysis of air and water. To alternate with Chemistry 11. Given in year 1915-16. Laboratory 6 hours. 3 credits. First Term. DR. MOORE.

10. Technical Quantitative Analysis. A continuation of Chemistry 9, to include exercises in fire assaying for the useful metals. To alternate with Chemistry 12. Given in year 1915-16. Laboratory 6 hours. 3 credits. Second Term. DR. MOORE.

11. Technical Quantitative Analysis. (Prerequisite: Chemistry 8.) Laboratory course in gas analysis. To alternate with Chemistry 9. Given in year 1914-15. Laboratory 6 hours. 3 credits. First Term. DR. MOORE.

12. Technical Quantitative Analysis. A continuation of Chemistry 11, to include analysis of foods. To alternate with Chemistry 10. Given 1914-15. Laboratory 6 hours. 3 credits. Second Term. DR. MOORE.

14. Technological Chemistry. (Prerequisite: Freshman Chemistry.) Lectures on fuels, furnace gases, and thermo-chemical calculations. Lectures 2 hours. 2 credits. Second term. ASSISTANT PROFESSOR SIMMONS.

18. Industrial Chemistry. (Prerequisite: Chemistry 8 and 16.) Lectures on application of chemistry in the industries, with visits to industrial plants. To alternate with Chemistry 22. Given 1915-16. Lectures 3 hours. 3 credits. Second Term. DR. MOORE.

22. Industrial Chemistry. (Prerequisite: Chemistry 8 and 16.) Lectures on the application of chemistry in the industries, with visits to industrial plants. To alternate with Chemistry 18. Given 1914-15. 3 credits. Second term. DR. MOORE.

15. Organic Chemistry. (Prerequisite: Chemistry 6.) Study of the aliphatic series of carbon compounds. Lectures, 2 hours. Two laboratory hours also required for College students. 3 credits. First Term. DR. FARNAU.

16. Organic Chemistry. A continuation of Chemistry 15, to include study of the aromatic series of carbon compounds and of the nitrogen bases. Lectures 2 hours, and laboratory as in Chemistry 15. 3 credits. Second Term. DR. FARNAU.

17. Organic Synthesis. (Prerequisite: Chemistry 16.) Preparation of organic compounds and study of type reactions. Laboratory, 8 hours. 3 credits. First Term. DR. FARNAU.

19. Physical Chemistry. (Prerequisites: Chemistry 16, Physics 1, 2; Mathematics 5, 6.) Lectures on theoretical chemistry, three hours weekly. 3 credits. Second Term. DR. FARNAU.

20. Physical Chemistry. A continuation of Chemistry 19. Lectures 3 hours. 3 credits. Second Term. DR. FARNAU.

21. Physical Chemical Experimentation. Laboratory exercises on the methods of physical chemistry. Laboratory 8 hours. 3 credits. First Term. DR. FARNAU.

23. Advanced Inorganic Preparations. Laboratory 10 hours. Credit 4. DR. MOORE.

24. Chemical Research. Laboratory work in connection with thesis for Chemical Engineering Seniors and College Seniors taking a Major Series in Chemistry. Laboratory 9 hours, conference 1 hour. Credit 4. Students are assigned to individual members of the departmental faculty.

Major: 5 and 6; 15 and 16 (or 7 and 8); 7 and 8 (or 19 and 20).

Minor: 5 and 6; 15 and 16 (or 7 and 8).

NOTE: The Chemistry courses of the February–September Division of the Freshman class will be given wholly in the June–September Term.

GEOLOGY

1. General Geology. Lectures, field and laboratory work. The lectures cover the origin of the earth; its igneous and gradational activities, and their resulting rocks and structures. Field work September–November. Laboratory November–January. 3 credits. Lectures two hours; field or laboratory two hours. First Term. ASSISTANT PROFESSOR FINLAY.

Text-book: Geology, Vol. I, by Chamberlin and Salisbury.

2. General Geology. (Prerequisite: Geology 1.) Lectures, laboratory and field work. Lectures cover internal dynamic activities; the geological effects of life; and a brief outline of geologic history. Laboratory February–March, field work April–May. 3 credits. Lectures two hours; laboratory or field two hours. Second Term. ASSISTANT PROFESSOR FINLAY.

3. Advanced Inorganic Geology. (Prerequisite: Geology 2.) Detailed discussion of special topics. The student will become acquainted with the use of original literature and the making of bibliographies on selected problems. The lectures will discuss glaciation and its relation to the development of climates, and to theories of earth genesis. Alternates with Geology 5; given in 1914–15. Lectures two hours, conference and quiz one hour. 3 credits. First Term. PROFESSOR WOODMAN.

4. Historical Geology. (Prerequisite: Geology 3 or 5.) The physical history of the different eras will be studied in some detail, and the development of plants and animals in outline. North America will receive especial attention. Lectures two hours; conference and quiz one hour. 3 credits. Second Term. PROFESSOR WOODMAN.

5. Advanced Inorganic Geology. (Prerequisite: Geology 2.) Detailed

discussion of special topics. The lectures will discuss igneous and other internal activities, their effects, and their bearing upon theories of earth genesis. Alternates with Geology 3; to be given in 1915-16. Lectures two hours; conference and quiz one hour. 3 credits. First Term.

PROFESSOR WOODMAN.

7. Mineralogy. (Prerequisite: Geology 2.) Lectures and laboratory work. Crystallography and physical mineralogy are covered in this course, and a beginning made of determinative mineralogy. The laboratory work is conducted by means of transparent and wooden models, natural crystals, and mineral and rock specimens. 3 credits. Lectures two hours, laboratory two hours. First Term. Text-book: Mineralogy by Rogers.

ASSISTANT PROFESSOR FINLAY.

8. Mineralogy. (Prerequisite: Geology 7.) Lectures and laboratory work. The lectures cover a description of the properties, occurrence and uses of the most important species; the laboratory work consists of specific determinations, by blowpipe and physical methods. Lectures two hours, laboratory two hours. 3 credits. Second Term.

ASSISTANT PROFESSOR FINLAY.

21. Seminar. (Prerequisite: Geology 6 or 8.) In this course and the following, the work consists of individual studies by each member, the progress and results of which are reported at the stated meetings of the course. The problems may require field, laboratory or library work, according to their nature. 3 credits. First Term.

PROFESSOR WOODMAN, ASSISTANT PROFESSOR FINLAY.

22. Seminar. (Prerequisite: Geology 21.) Continuation of Course 21, and given in the same manner. 3 credits. Second Term.

PROFESSOR WOODMAN, ASSISTANT PROFESSOR FINLAY.

Major:

- (1) Geology 1-2, 3-6 or 5-6, 21-22.
- (2) Geology 1-2, 7-8, 21-22.

Minor:

- (1) Geology 1-2, 3-6 or 5-6.
- (2) Geology 1-2, 7-8.

BIOLOGY

1. General Biology. Lectures and Laboratory exercises. Study of selected forms of plant and animal life. 3 credits. First Term.

PROFESSOR BRISTOL AND MR. ———

2. General Biology, continued. (Prerequisite: Biology 1.)

PROFESSOR BRISTOL AND MR. ———

M1. General Biology (Medical Preparatory). Lectures and Laboratory exercises. Study of selected forms of plant and animal life. 4 credits.

First term. PROFESSOR BRISTOL, MR. WATKINS AND MR. ———

M2. General Biology (Medical Preparatory), continued. (Prerequisite: the preceding course.) 4 credits. Second Term.

PROFESSOR BRISTOL, MR. WATKINS AND MR. ———

AM1, 2. Same as M1, M2. 8 credits. February–June Term.

PROFESSOR BRISTOL, MR. WATKINS AND MR. ———

3. Comparative Anatomy. Lectures and Laboratory exercises. Study of Vertebrate types. 3 credits. First Term.

PROFESSOR BRISTOL AND MR. WATKINS.

4. Comparative Anatomy, continued. (Prerequisite: Biology 3.)

PROFESSOR BRISTOL AND MR. WATKINS.

5. Vertebrate Zoölogy. Lectures and Laboratory exercises. May include Histology. 3 credits. First Term.

PROFESSOR BRISTOL AND MR. WATKINS.

6. Vertebrate Zoölogy, continued. (Prerequisite: Biology 5.) 3 credits. Second Term.

PROFESSOR BRISTOL AND MR. WATKINS.

8. Elementary Principles of Evolution. Lectures and Recitations. This course is designed for Juniors and Seniors who have no technical knowledge of Biology, and who may be interested in the subject. 2 credits. Second Term.

PROFESSOR BRISTOL.

Major: Biology 1, 2; 3, 4; 5, 6.

Minor: Biology 1, 2; 3, 4.

PHYSICAL TRAINING

From November 1 to April 1

1, 2. 1 credit. Freshmen, MR. CANN AND MR. MILLER.

A1. Same as 1. February–June Term.

3, 4. 1 credit. Sophomores. MR. CANN AND MR. MILLER.

5. Personal Efficiency. Required of Freshmen, Sections A and B. 1 credit. First Term. Under the Direction of PROFESSOR BRISTOL. Lectures by DR. WHITNEY and others.

Examination. Upon entering college, each student is required to present himself to the Physical Director for a physical examination.

NEW YORK UNIVERSITY
SUMMARY OF UNIVERSITY STATISTICS 1913-1914

DIVISIONS	Professors	Lecturers	Instructors	Assistants	Other Officers	Total Officers	Total Students	Degrees Conferred 1913
I. ARTS AND SCIENCE.								
1. College of Arts and Pure Science.....	25		14	9	5	53	375	51
2. School of Applied Science.....	20	6	15	5	3	49	282	35
3. Graduate School.....	41	6	7			54	378	42
4. School of Pedagogy.....	7	13	5			25	445	12
5. Washington Square College.....	32	4	16			52	446	39
6. Summer School.....	29	49		6		84	933	
II. LAW.								
7. School of Law.....	11	4	4		4	23	678	132
8. Woman's Law Class	1		3			4	73	
III. MEDICINE.								
9. University Medical College.....	51	19	46	12	51	179	534	75
10. Veterinary College.....	10	12	2			24	11	6
IV. COMMERCE.								
11. School of Commerce, Accounts and Finance..	14	29	24	4	3	74	2,190	126
V. GENERAL.								
12. Library.....					8	8		
Grand Total.....	241	142	136	36	74	629	6,345	518
Duplications	100	40	32	2		174	381	
Net Total.....	141	102	104	34	74	455	5,964	518

In the above total "auditors" are not reckoned, nor students of the Extramural Division. More than fifteen hundred of these students are in attendance in the University.

Special circulars of the various schools will be sent free upon application to the Registrar, New York University, Washington Square, N. Y. In writing please state which circular is desired. The General Catalogue will be sent upon receipt of twenty-five cents.

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VOL. XV

APRIL 1, 1915

No. 6

UNIVERSITY COLLEGE OF ARTS AND PURE SCIENCE

ANNOUNCEMENTS FOR THE EIGHTY-FOURTH YEAR

1915 : : : 1916

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CONTENTS

	<i>Page</i>
CALENDAR	3
FACULTY	4
FACULTY COMMITTEES	7
GENERAL STATEMENT	9
ADMISSION REQUIREMENTS	10
FEES	28
BOARD AND ROOMS	29
LOAN FUNDS	30
SCHOLARSHIPS	31
PRIZES	34
FELLOWSHIPS	38
GENERAL ANNOUNCEMENTS	39
REQUIREMENTS FOR GRADUATION	40
PHYSICAL TRAINING AND ATHLETIC SPORTS	43
GROUND AND BUILDINGS	43
LIBRARY AND LABORATORY FACILITIES	45
COURSE OF STUDY	46
HONORS SYSTEM	49
MEDICAL PREPARATORY COURSE	51
COMMERCE COURSE	55
COURSES OF INSTRUCTION BY DEPARTMENTS	57
UNIVERSITY STATISTICS	88

CALENDAR 1915-1916

1915

Sept. 13-17,	Mon. to Fri.,	Entrance Examinations.
Sept. 20,	Monday,	University College opens.
Sept. 20-21,	Mon. and Tues.,	Registration for all students.
Sept. 22,	Wednesday,	Chancellor's Address to Matriculants.
Oct. 18,	Monday,	Founders' Day.
Nov. 2,	Tuesday,	Legal Holiday, Election Day.
Nov. 25-27,	Thurs. to Sat.,	Thanksgiving Recess.
Dec. 23 to Jan. 1 (incl.)	Thurs. to Sat.,	Christmas Recess.

1916

Jan. 21-28,	Fri. to Fri.,	Term Examinations.
Jan. 24-28.	Mon. to Fri.,	Entrance Examinations, Feb.-Sept. Division.
Jan. 31,	Monday,	Second Term begins. First Term, Feb.-Sept. Division begins.
April 20-24 (incl.)	Thurs. to Mon.,	Easter Recess.
May 25-June 2 (incl.)	Fri. to Fri.,	Term Examinations.
May 30,	Tuesday,	Legal Holiday, Memorial Day.
June 7,	Wednesday,	COMMENCEMENT.
June 5-10,	Mon. to Sat.,	Recess, Feb.-Sept. Division.
June 12,	Monday,	Second Term, Feb.-Sept. Di- vision begins.
Sept. 23,	Saturday,	Second Term, Feb.-Sept. Di- vision ends.

University Heights may be reached by the Broadway subway to 207th St. Station; thence across University Heights bridge (ten minutes' walk); by transfer from Broadway subway at 181st St., to University Avenue trolley direct to the Campus; and from all east and west side elevated roads to Tremont Avenue, Jerome Avenue, or Ogden Avenue trolley lines, all of which transfer to the University Avenue line.

THE UNIVERSITY COLLEGE

OPENED 1832

FACULTY

ELMER ELLSWORTH BROWN, PH.D., LL.D.,
Chancellor of the University.

- ARCHIBALD L. BOUTON, M.A.,
Dean; Professor of English.
- DANIEL W. HERING, PH.D., C.E., LL.D.,
Professor of Physics.
- ERNEST GOTTLIEB SIHLER, PH.D.,
Professor of the Latin Language and Literature.
- MARSHALL S. BROWN, M.A.,
Professor of History and Political Science.
- CHARLES L. BRISTOL, PH.D.,
Professor of Biology.
- LAWRENCE A. McLOUTH, B.A., LL.D.,
Professor of the German Language and Literature.
- WILLIAM E. WATERS, PH.D.,
Professor of the Greek Language and Literature.
- THOMAS W. EDMONDSON, PH.D.,
Professor of Mathematics and Secretary of the Faculty.
- CHARLES GRAY SHAW, PH.D.,
Professor of Ethics and Assistant Professor of Philosophy.
- JOSEPH FRENCH JOHNSON, D.C.S.,
Professor of Political Economy and Finance.
- FREDERICK H. WILKENS, PH.D.,
Associate Professor of German.
- ARTHUR E. HILL, PH.D.,
Professor of Analytical Chemistry; Director of the Havemeyer Laboratory.
- J. LORING ARNOLD, PH.D.,
Professor of Electrical Engineering.
- FRANK H. CANN,
Director of Physical Training and Athletics.
- JOSEPH EDMUND WOODMAN, S.D.,
Professor of Geology; Director of the Geological Museum.

- JOHN P. SIMMONS, SC.D.,
Assistant Professor of Chemistry.
- THEODORE F. JONES, PH.D.,
Assistant Professor of European History.
- ARTHUR H. NASON, M.A.,
Assistant Professor of English.
- GEORGE I. FINLAY, PH.D.,
Assistant Professor of Geology.
- P. L. THORNE, M.S.,
Assistant Professor of Mathematics.
- EDWIN J. CLAPP, PH.D.,
Professor of Economics.
- BEVERLY S. ALLEN, PH.D.,
Assistant Professor of English.
- EARLE BROWNELL BABCOCK,
(Assistant Professor of Romance Languages, University of Chicago); Professor of the Romance Languages and Literatures.
- EARL F. FARNAU, PH.D.,
Assistant Professor of Chemistry.
- CHESTER F. S. WHITNEY, M.D.,
Lecturer on Physical Hygiene.
- GUY E. SNAVELY, PH.D.,
Professor of Romance Languages and Literatures at Allegheny College; Visiting Professor of Romance Languages for the year 1914-1915.
- H. C. HEATON, B.A.,
Instructor in Romance Languages.
- FRANK L. BIBB, B.A.,
Instructor in Music.
- ROY B. HUNTER, M.A.,
Instructor in Physics.
- JOHN WHYTE, M.A.,
Instructor in German.
- GEORGE A. BECKER, M.A.,
Instructor in Mathematics.
- FRIEDRICH WILHELM SCHOLZ, M.A.,
Instructor in German.
- CHARLES A. TONSOR, JR., PH.D.,
Instructor in English.
- RICHARD W. WATKINS,
Instructor in Biology.
- CAREY C. D. BRIGGS, B.S.,
Instructor in English and Public Speaking.

- FINLEY MELVILLE FOSTER, B.A.,
Instructor in English.
- HENRY STANLEY SCHWARZ, B.A.,
Instructor in Romance, Languages.
- HENRY A. HOLMES, M.A.,
Instructor in French.
- FRANCIS M. BARRANCO, B.A.,
Instructor in Latin.
- HAMMOND S. PRIDE, A.B.,
Instructor in Mathematics.
- RALPH E. OESPER, PH.D.,
Instructor in Chemistry.
- HALSEY J. BAGG, B.S.,
Instructor in Biology.
- JOHN REMINGTON HOBBIE, JR., M.A.,
Instructor in Physics.
- CHARLTON ANDREWS, M.A.,
Instructor in English.
- CHARLES CLARK HASELY, M.S.,
Instructor in Chemistry.
- LEO ROCKWELL, M.A.,
Instructor in German.
- E. W. ZIMMERMANN, PH.D.,
Instructor in Economics.
- FRANK A. AMON, M.S.,
Assistant in Chemistry.
- HENRY J. MASSON, CH.E.,
Assistant in Chemistry.
- WALTER MOCK, B.S.,
Assistant in Chemistry.
- M. A. MILLER,
Assistant in Physical Training.
- A. W. WORTH,
Assistant in Physical Training.
- ELTON R. CLARKE,
Assistant in Biological Laboratory.
- BRUCE R. SILVER, B.S.,
Inman Fellow in Chemistry.
- WILLIAM STEWART CLOUD,
Student Assistant in Physics.
- WILLIAM LYNDON WRIGHT,
Student Assistant in Music.

FRANK A. FALL, M.A.,
 Bursar of the University.
GEORGE C. SPRAGUE, PH.D.,
 Registrar of the University.

BELLE CORWIN, M.D.,
 Librarian of the General Library.
JEANNE M. ELLIOTT,
 Recorder.
EMMA F. SCHIRMER,
 Secretary to the Dean.

1914-1915

*Standing Committees of the Faculty of
College of Arts and Pure Science*

Admission: Chairman, PROFESSOR EDMONDSON; PROFESSORS
BRISTOL, HILL, CAMPBELL and DR. TONSOR.

Scholarship: Chairman, PROFESSOR SIMMONS; PROFESSORS MC-
LOUTH, THORNE, MR. HEATON, and MR.
BRIGGS, with the Recorder *ex-officio*.

Curriculum: Chairman, PROFESSOR BROWN; PROFESSORS HERING;
HILL, WOODMAN, CLAPP and MR. WHYTE.

Scholarships: DEAN BOUTON and PROFESSOR EDMONDSON.

DEAN BOUTON is an *ex-officio* member of each committee in the
College of Arts.

*Joint Standing Committees of the College of Arts and Pure Science
and the School of Applied Science*

Discipline: Chairman, DEAN BOUTON; DEAN SNOW, PROFESSORS
HARING, HILL, BROWN, and BRYANS.

Organizations: Chairman, PROFESSOR JONES; PROFESSORS THORNE,
CLAPP and CANN, with DEAN BOUTON and DEAN
SNOW as *ex-officio* members.

Examination Schedule: Chairman, PROFESSOR JONES; PROFESSOR
THORNE and MR. HEATON.

Music in Chapel: PROFESSOR WATERS and DR. TONSOR.

The CHANCELLOR is an *ex-officio* member of each committee.

For circulars of the University College, or School of Applied Science address the Recorder of the Faculty, New York University, University Heights, New York City. The office hours of the Recorder are 9 A.M. to 4.30 P.M. During July and August an assistant will represent the Recorder.

Entrance certificates should be forwarded to the Recorder as soon as prepared.

Inquiries respecting admission to University College should be addressed to Dean Archibald L. Bouton, University Heights, New York City. The Dean may be seen at his office in Language Hall, on Mondays, Tuesdays, Wednesdays and Thursdays, from 10.30 to 12.30 until June 10, and after September 17.

The Secretary of the Faculty may be seen in his office in the morning daily except Saturday, during the college year.

Inquiries respecting rooms should be addressed to the Superintendent of Grounds and Buildings, Albert Woolsey, University Heights, New York City.

UNIVERSITY COLLEGE OF ARTS AND PURE SCIENCE

General Statement

The undergraduate division of New York University was opened in 1832, and for many years had its home in the University Building at Washington Square. In the year 1894 it was removed to University Heights, in the Borough of the Bronx, New York City. The possession of beautiful grounds, with an athletic field and gymnasium, and especially the erection of both University and fraternity residence halls, greatly transformed the life of the College and marked a new era. In this new home the University College of Arts and Pure Science offers to students the advantages of the college life of the independent college in a small town, combined with the advantages that are to be gained from life in the metropolis and from intimate association with the wider intellectual life of a great university.

The curriculum of the University College leads to the degree of Bachelor of Arts and of Bachelor of Science upon the completion of 126 credits which are distributed as follows: (1) prescribed courses in certain general fields of knowledge, (2) courses constituting one major and two minors, and (3) free elective courses.

The plan of study permits the student to determine the general direction of his collegiate work and at the same time gives him the benefits of a carefully planned, well-rounded and consistent curriculum, the completion of which normally requires four years of study. A detailed statement of the requirements for graduation and of the various courses of study will be found in this Bulletin under the proper headings.

The college aims to secure for its students a liberal education and, at the same time, to adjust such education to the special requirements of later professional training. The course of study is so arranged that students may greatly broaden the range of their choice of subjects by electing courses in the professional schools of the University or may shorten the time required for the completion of college and professional studies by combining the work of certain professional schools with that of the University College.

The campus at University Heights is shared also by the University School of Applied Science, for those who wish upon leaving the High School to take up professional courses in Civil, Mechanical, or Chemical Engineering. A description of these courses will be found in the bulletin of the School of Applied Science.

These Schools of the University at University Heights offer to the undergraduate exceptional advantages in the instruction given, in the arrangement of courses, in the beauty of grounds and buildings, in the completeness of equipment, in the social life of the college, in the opportunities for gymnastics and athletics, and in the manifold outside educational forces of a metropolis.

Requirements for Admission

(1) The applicant must present satisfactory written testimonials showing that he is a young man of good moral character. When the applicant comes from another college he must present a certificate of honorable dismissal.

(2) The applicant must have pursued a thorough course of preparatory study and must be proficient in fifteen units of secondary school subjects. A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of the full year's work. A unit may be also defined as representing the work performed during four or five periods a week for one year, each period to be not less than forty minutes long. The subjects required for the University College of Arts and Pure Science are as follows:

FOR SECTION A.—English, three units; Latin, four units; either Greek, three units, or French, two units, or German, two units; Algebra, one and one-half units; Plane Geometry, one unit; and sufficient units to bring the total up to fifteen from the list of elective subjects given below.

FOR SECTION B.—English, three units; Algebra, one and one-half units; Plane Geometry, one unit; Solid Geometry, one-half unit; Trigonometry, one-half unit; Elementary French, two units; Elementary German, two units; either Chemistry or Physics, one unit; and three and one-half additional units from the list of Elective Subjects given below.

FOR SECTION C.—MEDICAL PREPARATORY CLASS. For requirements for admission to this section, see page 14.

ELECTIVE SUBJECTS

Advanced English, one unit; History, one or two units; Latin, four units; Greek, three units; French, two or three units; German, two or three units; Spanish, two units; Solid Geometry, one-half

unit; Trigonometry, one-half unit; Advanced Algebra, one-half unit; Physics, one unit; Chemistry, one unit; Botany, one unit; Geography, one unit; Zoölogy, one unit; Drawing, one unit.

The following table shows the number of specified and of elective units that will be required for admission:

	Units Re- quired for Section A	Units Re- quired for Section B	Electives
English.....	3	3	1
Latin.....	4	..	4
Greek.....	} 2 or 3	..	3
Elementary German.....		2	2
Intermediate German.....		..	1
Elementary French.....		2	2
Intermediate French.....		..	1
Spanish.....	..	..	2
History.....	..	..	1 or 2
Algebra, <i>a</i> i—To Quadratics.....	1	1	..
Algebra, <i>a</i> ii—Quadratics and Beyond.....	$\frac{1}{2}$	$\frac{1}{2}$	..
Algebra <i>b</i> —Advanced.....	..	..	$\frac{1}{2}$
Plane Geometry.....	1	1	..
Solid Geometry.....	..	$\frac{1}{2}$	$\frac{1}{2}$
Trigonometry.....	..	$\frac{1}{2}$	$\frac{1}{2}$
Physics.....	..	1 or	1
Chemistry.....	..	1	1
Botany.....	..	..	1
Zoölogy.....	..	..	1
Geography.....	..	..	1
Drawing.....	..	..	1
Sum of Specified Units.....	$11\frac{1}{2}$ or $12\frac{1}{2}$	$11\frac{1}{2}$	....
Sum of Elective Units.....	$3\frac{1}{2}$ or $2\frac{1}{2}$	$3\frac{1}{2}$	....
Total Required Units.....	15	15	....

Detailed definitions, showing what is included under each of the above subjects, will be found given on page 15 under the heading "Definition of Requirements."

Evidence of proficiency in these subjects may be given by the candidate in any one of five ways, as follows:

1. *By Certificate of an Approved School.*—Students from approved secondary schools may be admitted to the Freshman Class upon certificate, without examinations, subject to the following conditions: 1. The application for the admission of a student by certificate must be specific in character, stating that the student has attended the school at least one year, and has completed at least fifteen units of secondary school work. Blank forms of certificates for this purpose will be furnished by the University upon application. 2. The University does not bind itself to accept beyond the current year the certificate of any school in place of examinations, but will continue to accept certificates from those schools which shall have sent to the University students thoroughly prepared, as proved by their standing after admission.

2. *By Certificate of the College Entrance Examination Board.*—The College Entrance Examination Board is an association of colleges and secondary schools formed to conduct uniform college entrance examinations at numerous points throughout the country. New York University is a member of the association and will admit to University College students who present a certificate showing that they have passed the Board's examinations in the subjects prescribed by the University for entrance. The Board will hold examinations at University Heights, June 14–19, 1915. All applications for this examination must be addressed to the Secretary of the College Entrance Examination Board, Post Office Sub-station 84, New York City, N. Y., and must be made upon a blank form to be obtained from the Secretary of the Board upon application. Applications for this examination must be received by the Secretary of the Board at least two weeks in advance of the examination, *i. e.*, on or before Monday, May 31, 1915. An examination fee of \$5 is charged of all candidates; and students who enter the University College of Arts and Pure Science on the Board's certificate, having paid the Board's fee for examination, are exempted from payment of the University matriculation fee. For further information regarding these examinations, and a complete list of the places where they are held, address the Secretary of the Board, Thomas S. Fiske, Ph.D., Sub-station 84, New York City.

3. *By Entrance Examinations of the University College.*—No entrance examinations will be held by the University in June in view of the examinations held at the University at that time under the direction of the College Entrance Board. The University will hold examinations in the subjects prescribed for entrance from September 13 to 17, 1915, and from January 24 to 28, 1916, at University Heights, as follows:

SCHEDULE

SEPTEMBER 13-17, 1915, AND JANUARY 24-28, 1916

Monday *September 13, 1915*
 January 24, 1916

Mathematics <i>a</i> (Elementary Algebra, complete)	9.30-12.30
Mathematics <i>a</i> , i (Algebra to Quadratics)	9.30-11.30
Mathematics <i>a</i> , ii (Quadratics and Beyond)	9.30-11.30
History <i>b</i> (Medieval and Modern History)	1.30- 3.30
History <i>d</i> (American History)	1.30- 3.30
Physics	3.45- 5.45
Botany	3.45- 5.45
Zoölogy	3.45- 5.45

Tuesday *September 14, 1915*
 January 25, 1916

Mathematics <i>c</i> (Plane Geometry)	9.30-11.30
Mathematics <i>d</i> (Solid Geometry)	9.30-11.30
Mathematics <i>cd</i> (Plane and Solid Geometry)	9.30-12.30
History <i>a</i> (Ancient History)	1.30- 3.30
History <i>c</i> (English History)	1.30- 3.30
German <i>a</i> (Elementary)	3.45- 5.45
Greek <i>b</i> (Xenophon's Anabasis)	3.45- 5.45

Wednesday *September 15, 1915*
 January 16, 1916

Latin <i>N R 3</i> (Second Year Latin)	9.30-11.30
Mathematics <i>e</i> (Trigonometry)	9.30-11.30
French <i>a</i> (Elementary)	1.30- 3.30
German <i>b</i> (Intermediate)	3.45- 5.45
Spanish	3.45- 5.45
Latin <i>N R 1</i> and <i>2</i> (Grammar and Elementary Prose Composition)	3.45- 5.45

Thursday September 16, 1915
January 27, 1916

Latin <i>N R 4</i> (Cicero— <i>Manilian Law</i> and <i>Archias</i> , and Sight Translation of Prose).....	9.30–11.30
Drawing.....	9.30–11.30
Mathematics <i>b</i> (Advanced Algebra).....	9.30–11.30
Latin <i>N R 5</i> (Vergil— <i>Æneid</i> I, II, and IV or VI, and Sight Translation of Poetry).....	1.30– 3.30
French <i>b</i> (Intermediate).....	3.45– 5.45
Greek <i>a</i> (Grammar and Elementary Prose Composition).....	3.45– 5.45

Friday September 17, 1915
January 28, 1916

English <i>1</i> (Grammar and Composition).....	9.30–11.30
English <i>2</i> (Literature).....	1.30– 3.30
Chemistry.....	3.45– 5.45
Physiography.....	3.45– 5.45
Greek <i>c</i> (Homer's <i>Iliad</i> , Books I–III).....	3.45– 5.45

Students may take a part of the examinations as “preliminaries” a year before entrance, but no student will be examined who does not submit a certificate of preparedness for examination in the subject in which the candidate offers himself, from the school last attended.

4. *By Diploma of the Regents of the State of New York.*—The academic and college entrance diplomas of the Regents will be accepted in satisfaction of the requirements for entrance, when such diplomas cover the subjects required for admission to the Freshman class.

5. *By Certificate from another College.*—A letter from a college maintaining requirements for admission equal to those of the University, stating that the candidate has been admitted to the Freshman class of that institution and is honorably dismissed in order to enter another college, will be accepted in satisfaction of the requirements for entrance.

Requirements for Admission to Section C.—Medical Preparatory Class

Entrance to the preparatory college course for Medical Students will be based upon any one of the following evidences of qualification:

(1) A diploma of graduation from a four-year high school course recognized by the Regents of the State of New York.

(2) A certificate of the College Entrance Examination Board covering fifteen units of Secondary School Subjects.

(3) Entrance examinations of the University College covering fifteen units of Secondary School Subjects.

(4) A certificate of admission to the freshman class of a recognized college.

The subjects required for entrance are more explicitly defined as follows, in accordance with the standard requirements of the College Entrance Examination Board:

Definition of Requirements
English

The study of English in school has two main objects: (1) command of correct and clear English, spoken and written; (2) ability to read with accuracy, intelligence, and appreciation.

Grammar and Composition
One and one-half units

The first object requires instruction in grammar and composition. English grammar should ordinarily be reviewed in the secondary school; and correct spelling and grammatical accuracy should be rigorously exacted in connection with all written work during the four years. The principles of English composition governing punctuation, the use of words, sentences, and paragraphs should be thoroughly mastered; and practice in composition, oral as well as written, should extend throughout the secondary school period. Written exercises may well comprise letter-writing, narration, description, and easy exposition and argument. It is advisable that subjects for this work be taken from the student's personal experience, general knowledge, and studies other than English, as well as from his reading in literature. Finally, special instruction in language and composition should be accompanied by concerted effort of teachers in all branches to cultivate in the student the habit of using good English in his recitations and various exercises, whether oral or written.

Literature
One and one-half units

The second object is sought by means of two lists of books, headed respectively READING and STUDY, from which may be framed a progressive course in literature covering four years. In connection with both lists, the student should be trained in reading aloud and be encouraged to commit to memory some of the more notable passages both in verse and in prose. As an aid to literary

appreciation, he is further advised to acquaint himself with the most important facts in the lives of the authors whose works he reads and with their place in literary history.

A. READING

The aim of this course is to foster in the student the habit of intelligent reading and to develop a taste for good literature, by giving him a first-hand knowledge of some of its best specimens. He should read the books carefully, but his attention should not be so fixed upon details that he fails to appreciate the main purpose and charm of what he reads.

With a view to large freedom of choice, the books provided for reading are arranged in the following groups, from each of which at least two selections—each selection is set off by semicolon—are to be made, except as otherwise provided under Group I.

I. The *Old Testament*, comprising at least the chief narrative episodes in Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the *Odyssey*, with the omission, if desired, of Books I, II, III, IV, V, XV, XVI, XVII; the *Iliad*, with the omission, if desired, of Books XI, XII, XIV, XV, XVII, XXI; Vergil's *Æneid*. The *Odyssey*, *Iliad*, and *Æneid* should be read in English translations of recognized literary excellence.

For any selection from this group a selection from any other group may be substituted.

II. Shakespeare's *Midsummer Night's Dream*; *Merchant of Venice*; *As You Like It*; *Twelfth Night*; *The Tempest*; *Romeo and Juliet*; *King John*; *Richard II*; *Richard III*; *Henry V*; *Coriolanus*; *Julius Cæsar*; *Macbeth*; *Hamlet* (the last three only if not chosen for study under B).

III. Malory's *Morte d'Arthur* (about 100 pages); Bunyan's *Pilgrim's Progress, Part I*; Swift's *Gulliver's Travels* (voyages to Lilliput and to Brobdingnag); Defoe's *Robinson Crusoe, Part I*; Goldsmith's *Vicar of Wakefield*; Frances Burney's *Evelina*; Scott's Novels (any one); Jane Austen's Novels (any one); Maria Edgeworth's *Castle Rackrent*, or *The Absentee*; Dickens' Novels (any one); Thackeray's Novels (any one); George Eliot's Novels (any one); Mrs. Gaskell's *Cranford*; Kingsley's *Westward Ho!* or *Hereward, the Wake*; Reade's *The Cloister and the Hearth*; Blackmore's *Lorna Doone*; Hughes' *Tom Brown's Schooldays*; Stevenson's *Treasure Island*, or *Kidnapped*, or *Master of Ballantrae*; Cooper's Novels (any one); Poe's *Selected Tales*; Hawthorne's *The House of the Seven Gables*, or *Twice Told Tales*, or *Mosses from an Old Manse*; a collection of *Short Stories* by various standard writers.

IV. Addison and Steele's *Sir Roger de Coverley Papers*, or Selections from the *Tatler* and *Spectator* (about 200 pages); Boswell's Selections from *Life of Johnson* (about 200 pages); Franklin's *Autobiography*; Irving's *Life of Goldsmith*, or Selections from the *Sketch Book* (about 200 pages); Southey's *Life of Nelson*; Selections from Lamb's *Essays of Elia* (about 100 pages); Selections from Lockhart's *Life of Scott* (about 200 pages); Thackeray's Lectures on *Swift, Addison, and Steele in the English Humorists*; any one of Macaulay's *Essays on Lord Clive, Warren Hastings, Milton, Addison, Goldsmith, Frederic the Great, Madame d'Arblay*; Selections from Trevelyan's *Life of Macaulay* (about 200 pages); Ruskin's *Sesame and Lilies*, or *Selections* (about 150 pages); Dana's *Two Years before the Mast*; Selections from Lincoln's Speeches, including at least the two Inaugurals, the Speeches in Independence Hall and at Gettysburg, the Last Public Address, and the Letter to Horace Greeley, together with a brief memoir or estimate of Lincoln; Parkman's *The Oregon Trail*; Thoreau's *Walden*; Lowell's *Selected Essays* (about 150 pages); Holmes' *Autocrat of the Breakfast Table*; Stevenson's *An Inland Voyage and Travels with a Donkey*; Huxley's *Autobiography* and selections from *Lay Sermons*, including the addresses on *Improving Natural Knowledge, A Liberal Education, and A Piece of Chalk*; a collection of *Essays* by Bacon, Lamb, De Quincey, Hazlitt, Emerson, and later writers; a collection of *Letters* by various standard writers.

V. Palgrave's *Golden Treasury (First Series)*, Books II and III, with special attention to Dryden, Collins, Gray, Cowper, and Burns; Palgrave's *Golden Treasury (First Series)*, Book IV, with special attention to Wordsworth, Keats, and Shelley (if not chosen for study under B); Goldsmith's *The Traveller* and *The Deserted Village*; Pope's *The Rape of the Lock*; a collection of English and Scottish *Ballads*, as, for example, some *Robin Hood* ballads, *The Battle of Otterburn, King Estmere, Young Beichan, Bewick and Grahame, Sir Patrick Spens*, and a selection from later ballads; Coleridge's *The Ancient Mariner, Christabel, and Kubla Khan*; Byron's *Childe Harold, Canto III or IV, and The Prisoner of Chillon*; Scott's *The Lady of the Lake, or Marmion*; Macaulay's *The Lays of Ancient Rome, The Battle of Naseby, The Armada, Ivory*; Tennyson's *The Princess, or Gareth and Lynette, Lancelot and Elaine, and The Passing of Arthur*; Browning's *Cavalier Tunes, The Lost Leader, How They Brought the Good News from Ghent to Aix, Home Thoughts from Abroad, Incident of the French Camp, Heré Riel, Pheidippides, My Last Duchess, Up at a Villa—Down in the City, The Italian in England, The Patriot, The Pied Piper, "De Gustibus"—, Instans Tyrannus*; Arnold's *Sohrab and Rustum, and The Forsaken Merman*; Selections from *American Poetry*, with special attention to Poe, Lowell, Longfellow, and Whittier.

B. STUDY. This part of the requirement is intended as a natural and logical continuation of the student's earlier reading, with greater stress laid upon form and style, the exact meaning of words and phrases, and the understanding of allusions. The books provided for study are arranged in four groups, from each of which one selection is to be made.

I. Shakespeare's *Julius Cæsar*, or *Macbeth*, or *Hamlet*;

II. Milton's *L'Allegro*, *Il Penseroso*, and either *Comus* or *Lycidas*; Tennyson's *The Coming of Arthur*, *The Holy Grail*, and *The Passing of Arthur*; the selections from Wordsworth, Keats, and Shelley in *Book IV* of Palgrave's *Golden Treasury* (*First Series*).

III. Burke's *Speech on Conciliation with America*; Macaulay's *Two Speeches on Copyright*, and Lincoln's *Speech at Cooper Union*; Washington's *Farewell Address* and Webster's *First Bunker Hill Oration*.

IV. Carlyle's *Essay on Burns*, with a selection from Burns's *Poems*; Macaulay's *Life of Johnson*; Emerson's *Essay on Manners*.

EXAMINATION

However accurate in subject matter, no paper will be considered satisfactory if seriously defective in punctuation, spelling or other essentials of good usage.

The examination will be divided into two parts:

1. Grammar and Composition

In grammar and composition, the candidate may be asked specific questions upon the practical essentials of these studies, such as the relation of the various parts of a sentence to one another, the construction of individual words in a sentence of reasonable difficulty, and those good usages of modern English, which one should know in distinction from current errors. The main test in composition will consist of one or more essays, developing a theme through several paragraphs; the subjects will be drawn from the books read, from the candidate's other studies, and from his personal knowledge and experience quite apart from reading. For this purpose the examiner will provide several subjects, perhaps eight or ten, from which the candidate may make his own selections. He will not be expected to write more than four hundred words per hour.

2. Literature

The examination in literature will include:

A. General questions designed to test such a knowledge and appreciation of literature as may be gained by fulfilling the require-

ments defined above under *A. READING*. The candidate will be required to submit a list of the books read in preparation for the examination, certified by the principal of the school in which he was prepared; but the books named in this list will not be made the basis of detailed questions.

B. A test on the books prescribed under *B. STUDY*, above, which will consist of questions upon their content, form, and structure, and upon the meaning of such words, phrases, and allusions as may be necessary to an understanding of the works and an appreciation of their salient qualities of style. General questions may also be asked concerning the lives of the authors, their other works, and the periods of literary history to which they belong.

Either part of the examination may be taken separately.

History

A. Ancient history, with special reference to Greek and Roman history and including also a short introductory study of the more ancient nations and the chief events of the early Middle Ages, down to the death of Charlemagne (814).

B. Mediæval and modern European history, from the death of Charlemagne to the present time.

C. English history.

D. American history and civil government.

Latin

I. AMOUNT AND RANGE OF THE READING REQUIRED.

- i. The Latin reading, without regard to the prescription of particular authors and works, shall not be less in amount than Cæsar, Gallic War, I-IV; Cicero, the orations against Catiline, for the Manilian Law, and for Archias; Vergil, *Æneid*, I-IV.
- ii. The amount of reading specified above shall be selected by the schools from the following authors and works: Cæsar (Gallic War and Civil War) and Nepos (*Lives*); Cicero (orations, letters, and *De Senectute*), and Sallust (*Catiline* and *Jugurthine War*); Vergil (*Bucolics*, *Georgics*, and *Æneid*), and Ovid (*Metamorphoses*, *Fasti*, and *Tristia*).

II. SCOPE OF THE EXAMINATIONS.

- i. **TRANSLATION AT SIGHT:** Candidates will be examined in translation at sight of both prose and verse. The vocabu-

lary, constructions, and range of ideas of the passages set will be suited to the preparation secured by the reading indicated above.

- ii. **PRESCRIBED READING.** Candidates will be examined also upon the following prescribed reading: Cicero, orations for the Manilian Law and for Archias, and Vergil, *Æneid*, I, II, and either IV or VI, at the option of the candidate, with questions on subject-matter, literary and historical allusions, and prosody. Every paper in which passages from the prescribed reading are set will contain also one or more passages for translation at sight; and candidates must deal satisfactorily with both these parts of the paper, or they will not be given credit for either part.
- iii. **GRAMMAR AND COMPOSITION:** The examinations in grammar and composition will demand thorough knowledge of all regular inflections, all common irregular forms, and all the ordinary syntax and vocabulary of the prose authors read in school, with ability to use this knowledge in writing simple Latin prose.

III. SUBJECTS FOR EXAMINATION

- i. **GRAMMAR.** The examination will presuppose the reading of the required amount of prose (see I, 1 and 2), including the prose works prescribed (see II, 2).
- ii. **ELEMENTARY PROSE COMPOSITION.** The examination will presuppose the reading of the required amount of prose (see I, 1 and 2), including the prose works prescribed (see II, 2).
- iii. **SECOND YEAR LATIN.** This examination is offered primarily for candidates intending to enter colleges which require only two years of Latin or accept so much as a complete preparatory course. It will presuppose reading not less in amount than Cæsar, *Gallie War*, I-IV, selected by the schools from Cæsar (*Gallie War* and *Civil War*) and Nepos (*Lives*); but the passages set will be chosen with a view to sight translation. The paper will include easy grammatical questions and some simple composition.
- iv. **CICERO** (orations for the Manilian Law and for Archias) and *Sight Translation of Prose*. The examination will presuppose the reading of the required amount of prose (see I, 1 and 2).

- v. VERGIL (*Æneid*, I, II, and either IV or VI, at the option of the candidate) and *Sight Translation of Poetry*. The examination will presuppose the reading of the required amount of poetry (see I, 1 and 2).

Greek

- A. i. GREEK GRAMMAR: The topics for examination in Greek grammar are similar to those detailed under Latin grammar.
ii. ELEMENTARY PROSE COMPOSITION, consisting principally of detached sentences to test the candidate's knowledge of grammatical constructions.

The examination in grammar and prose composition will be based on the first two books of Xenophon's *Anabasis*.

- B. XENOPHON: The first three books of the *Anabasis*.
C. HOMER: The first three books of the *Iliad* (omitting II, 494 to end), and the Homeric constructions, forms and prosody.

French

A. THE ELEMENTARY REQUIREMENT

THE AIM OF THE INSTRUCTION

At the end of the elementary course the pupil should be able to pronounce French accurately, to read at sight easy French prose, to put into French simple English sentences taken from the language of everyday life, or based upon a portion of the French text read, and to answer questions on the rudiments of the grammar, as defined below.

THE WORK TO BE DONE

During the first year the work should comprise: (1) careful drill in pronunciation; (2) the rudiments of grammar, including the inflection of the regular and the more common irregular verbs, the plural of nouns, the inflection of adjectives, participles, and pronouns; the use of personal pronouns, common adverbs, prepositions and conjunctions; the order of words in the sentence, and the elementary rules of syntax; (3) abundant easy exercises, designed not only to fix in the memory the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (4) the reading of from 100 to 175 duodecimo pages of graduated texts, with constant practice in translating into French easy variations of the sentences read (the teacher giving the English) and in reproducing from memory sentences previously read; (5) writing French from dictation.

During the second year the work should comprise: (1) the reading of from 250 to 400 pages of easy modern prose in the form of stories, plays, or historical or biographical sketches; (2) constant practice, as in the previous year, in translating into French easy variations upon the texts read; (3) frequent abstracts, sometimes oral and sometimes written, of portions of the text already read; (4) writing French from dictation; (5) continued drill upon the rudiments of grammar, with constant application in the construction of sentences; (6) mastery of the forms and use of pronouns, pronominal adjectives, of all but the rare irregular verb forms, and of the simpler uses of the conditional and subjunctive.

B. THE INTERMEDIATE REQUIREMENT

THE AIM OF THE INSTRUCTION

At the end of the intermediate course the pupil should be able to read at sight ordinary French prose or simple poetry, to translate into French a connected passage of English based on the text read, and to answer questions involving a more thorough knowledge of syntax than is expected in the elementary course.

THE WORK TO BE DONE

This should comprise the reading of from 400 to 600 pages of French of ordinary difficulty, a portion to be in the dramatic forms; constant practice in giving French paraphrases, abstracts or reproductions from memory of selected portions of the matter read; the study of a grammar of moderate completeness; writing from dictation.

German

A. THE ELEMENTARY REQUIREMENT

THE AIM OF THE INSTRUCTION

At the end of the elementary course in German the pupil should be able to read at sight, and to translate, if called upon, by way of proving his ability to read a passage of very easy dialogue or narrative prose, help being given upon unusual words and constructions, to put into German short English sentences taken from the language of everyday life or based upon the text given for translation, and to answer questions upon the rudiments of grammar, as defined below.

THE WORK TO BE DONE

During the first year the work should comprise: (1) careful drill upon pronunciation; (2) the memorizing and frequent repetition of easy colloquial sentences; (3) drill upon the rudiments of grammar; (4) the reading of from 75 to 100 pages of graduated texts from a reader, with constant practice in translating into German easy variations upon sentences selected from the reading lesson (the teacher giving the English), and in the reproduction from memory of sentences previously read.

During the second year the work should comprise: (1) the reading of from 150 to 200 pages of literature in the form of easy stories and plays; (2) accompanying practice, as before, in the translation into German of easy variations upon the matter read, and also in the off-hand reproduction, sometimes orally and sometimes in writing, of the substance of short and easy selected passages; (3) continued drill upon the rudiments of grammar, directed to the ends of enabling the pupil, first, to use his knowledge with facility in the formation of sentences, and secondly, to state his knowledge correctly in the technical language of grammar.

B. THE INTERMEDIATE REQUIREMENT

THE AIM OF THE INSTRUCTION

At the end of the intermediate course the pupil should be able to read at sight German prose of ordinary difficulty, whether recent or classical; to put into German a connected passage of simple English, paraphrased from a given text in German; to answer any grammatical questions relating to usual forms and essential principles of the language, including syntax and word-formation, and to translate and explain (so far as explanation may be necessary) a passage of classical literature taken from some text previously studied.

THE WORK TO BE DONE

The work should comprise, in addition to the elementary course, the reading of about 400 pages of moderately difficult prose and poetry, with constant practice in giving, sometimes orally and sometimes in writing, paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; also grammatical drill upon the less usual strong verbs, the use of articles, cases, auxiliaries of all kinds, tenses and modes (with special reference to the infinitive and subjunctive), and likewise upon word-order and word-formation.

Spanish

At the end of the elementary course the pupil should be able to pronounce Spanish accurately, to read at sight easy Spanish prose, to put into Spanish simple English sentences taken from the language of everyday life or based upon a portion of the Spanish text read, and to answer questions on the rudiments of the grammar.

Mathematics

A. ELEMENTARY ALGEBRA:

- i. ALGEBRA TO QUADRATICS: The four fundamental operations for rational algebraic expressions. Factoring, determination of highest common factor and lowest common multiple by factoring. Fractions, including complex fractions, ratio and proportion. Linear equations, both numerical and literal, containing one or more unknown quantities. Problems depending on linear equations. Radicals, including the extraction of the square root of polynomials and of numbers. Exponents, including the fractional and negative.
- ii. QUADRATICS AND BEYOND: Quadratic equations, both numerical and literal. Simple cases of equations with one or more unknown quantities, that can be solved by the methods of linear or quadratic equations. Problems depending on quadratic equations. The binomial theorem for positive integral exponents. The formulas for the n th term and the sum of the terms of arithmetical and geometric progressions, with applications.

It is assumed that pupils will be required throughout the course to solve numerous problems which involve putting questions into equations. Some of these problems should be chosen from mensuration, from physics, and from commercial life. The use of graphical methods and illustrations, particularly in connection with the solution of equations, is also expected.

- B. ADVANCED ALGEBRA: Permutations and combinations, limited to simple cases. Complex numbers, with graphical representations of sums and differences. Determinants, chiefly of the second, third, and fourth orders, including the use of minors and the solution of linear equations. Numerical equations of higher degree, and so much of the theory of equations, with graphical methods, as is necessary for

their treatment, including Descartes' rule of signs and Horner's method, but not Sturm's functions or multiple roots.

- C. **PLANE GEOMETRY:** The usual theorems and constructions of good text-books, including the general properties of plane rectilinear figures; the circle and the measurement of angles; similar polygons; areas; regular polygons and the measurement of the circle. The solution of numerous original exercises, including loci problems. Applications to the mensuration of lines and plane surfaces.
- D. **SOLID GEOMETRY:** The usual theorems and constructions of good text-books, including the relations of planes and lines in space; the properties and measurement of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle. The solution of numerous original exercises, including loci problems. Applications to the mensuration of surface and solids.
- E. **TRIGONOMETRY:** Definitions and relations of the six trigonometric functions as ratios; circular measurement of angles. Proofs of principal formulas, in particular for the sine, cosine and tangent of the sum and the difference of two angles, of the double angle and the half angle, the product expressions for the sum or the difference of two sines or of two cosines, etc.; the transformation of trigonometric expressions by means of these formulas. Solution of trigonometric equations of a simple character. Theory and use of logarithms (without the introduction of work involving infinite series). The solution of right and oblique triangles, and practical applications, including the solution of right spherical triangles.

Physics

The course of instruction in physics should include:

- a. The study of one standard text-book for the purpose of obtaining a connected and comprehensive view of the subject. The student should be given opportunity and encouragement to consult other scientific literature.
- b. Instruction by lecture-table demonstrations, to be used mainly for illustration of the facts and phenomena of physics in their qualitative aspects and in their practical applications.
- c. Individual laboratory work consisting of experiments requiring at least the time of thirty double periods, two hours

in the laboratory to be counted as equivalent to one hour of class-room work. The experiments performed by each student should number at least thirty. The work should be distributed so as to give a wide range of observation and practice.

At the time of the examination the candidate must present a note-book in which he has recorded the steps and the results of his laboratory exercises, and this note-book must bear the endorsement of his teacher, certifying that the notes are a true record of the pupil's work. It should contain an index of the exercises which it describes. It is practicable for pupils to make the original record of their observations entirely presentable, so that copying will be unnecessary, and they should in general be required to do so. This note-book will be returned at any time within a year at the request of the candidate.

A list of suitable experiments in physics is contained in the definitions of the requirements published by the College Entrance Examination Board.

Chemistry

It is recommended that the candidate's preparation in chemistry should include:

- (1) Individual laboratory work, comprising at least forty exercises selected from a list of sixty or more.
- (2) Instruction by lecture-table demonstrations to be used mainly as a basis for questioning upon the general principles involved in the pupil's laboratory investigations.
- (3) The study of at least one standard text-book, to the end that the pupil may gain a comprehensive and connected view of the most important facts and laws of elementary chemistry.

A list of suitable experiments in chemistry is contained in the definitions of the requirements published by the College Entrance Examination Board.

Geography

The entrance requirements consist of (1) a study of one of the leading secondary text-books on Physical Geography; (2) individual laboratory work, comprising at least forty exercises covering the general subject as outlined below. From one-third to one-half the class-room work should be devoted to this. Field trips in spring and autumn should replace some, say eight, of the laboratory exer-

cises. The time required for the subject should be at least four hours per week throughout a high school year.

A syllabus of the course to be covered is given in the pamphlet on the general subject of College Entrance Requirements issued by the College Entrance Examination Board. In general it is as follows: The Earth as a Globe (Mathematical Geography); The Ocean (including shoreline development) and The Atmosphere, as in most standard text-books; The Land, including changes now in progress, rivers and their cycles, glaciers and the forms produced by them, and the elements of land forms with the history of their development—plains, plateaus and mountains; finishing with a brief study of the relation of life, including man, to geographic environment.

The percentage of time required in studying the different subdivisions may be mathematical geography and the ocean each $12\frac{1}{2}$, the atmosphere 30, and the land 45.

Botany

The full year's course consists of two parts:

PART I. The general principles of: (a) Anatomy and morphology; (b) Physiology; (c) Ecology.

PART II. The natural history of the plant groups, and classification.

Zoölogy

A syllabus of the course to be covered is given in the pamphlet on the general subject of College Entrance Requirements issued by the College Entrance Examination Board.

Drawing

The examination will test the preparation of the candidate in the following points:

1. Ability to sketch from the object with reasonable correctness as to proportion, structure, and form. It is recommended that the subjects drawn include simple geometrical objects and simple natural objects such as living plant forms.
2. Ability to sketch freehand from dictation with reasonable accuracy any simple geometrical figure or combination of figures.
3. Ability to represent accurately in perspective a simple geometrical solid of which projection drawings are given, and ability

to make consistent projection drawings of a simple geometrical solid of which a perspective representation is given.

4. Ability to answer questions in regard to the principles involved in making these drawings.

FEES

The regulations as to fees adopted by the Council of the New York University are at present as follows. They are subject to change without notice.

Tuition Fees

Matriculation fee (paid once only)	\$5.00
Tuition in any of the Sections per year	125.00
Annual incidental fee (payable at beginning of first term)	20.00

\$75 payable at the beginning of the first term and \$50 payable at the beginning of the second term, ten days of grace being allowed, at the end of which time non-payment will debar from classes. This rule applies also to room rents.

Fee for the Athletic Association for the year	\$5.00
Fee for non-athletic student activities	5.00
Diploma fee, covering Commencement charges	25.00

NOTE.—With the exception of Section C students (whose tuition fee is \$125 in addition to the matriculation, athletic, non-athletic and laboratory fees), the charge for tuition for students now in College who matriculated prior to March 1, 1914, will be \$100, one-half of which is payable at the beginning of the first term and one-half at the beginning of the second term.

Fees for Laboratory Material

Biology 11, 12, 50, 60, 70, 80, each course	\$5.00
Chemistry 12, 22, 13, 23, each course	4.00
Chemistry 14, 24, 15, 25, each course	8.00
Chemistry 16, 26, 30, 40, 50, 60, 70, 80, 31, 41, 51, 71, 72, 82, each course	10.00
Geology 30, 40, 70, 80, 71,* 81*	3.00
Physics 11, 21, 12, 22, each course	2.50
Physics 10, 20, 51, 61, 71, 81, each course	3.00
Physics 50, 60, 70, 80, each course	5.00

*The fee for this course is charged only when laboratory exercises form part of the required work.

Estimate of Necessary Expenses of Students
Exclusive of clothing and traveling expenses

	<i>Low</i>	<i>Moderate</i>	<i>Liberal</i>
Tuition.....	\$125	\$125	\$125
Incidental fees.....	20	20	20
Student activities.....	10	10	10
Laboratory fees.....	10	20	30
Text-books and stationery.....	12	25	40
Room, light, fuel, and use of furniture	60	80	125
Board, 35 weeks.....	193	205	210
Washing and sundries.....	15	20	30
	<u>\$445</u>	<u>\$505</u>	<u>\$590</u>

BOARD AND ROOMS

University Residence Halls

GOULD HALL. This Residence Hall, the gift of Miss Helen Miller Gould in memory of her parents, Mr. and Mrs. Jay Gould, was opened Thanksgiving Day, 1896. It is designed for 112 students, and contains in its four stories 48 studies, each with an open fireplace; 64 bedrooms, accommodating 112 bedsteads; 8 bathrooms, most of them with shower baths; 112 clothes closets; 2 reception rooms; the entire building being thoroughly fireproof. The construction allows a choice of rooms in suites, differently arranged for one, two or three students. Steam heat is introduced into all the studies and bedrooms. Ventilation is aided by the handsome open fireplaces, one in every suite. The floors are of carefully matched hardwood, which may be left uncarpeted and used with rugs. All the rooms are lighted by electricity. Prices for rooms include light, heat, water, care of room, and use of furniture. Rent varies from \$60 a year, for the smallest single room, to \$225 for the highest priced corner suite. The furniture includes articles deemed necessary, excepting bedclothing and towels. In the attic is a large trunk room. Two elevators will convey students' trunks to this room for storage. In the basement, which is largely above ground, is the College Music Room.

WEST HALL, EAST HALL. The large residences on the Schwab and Chrystie estates, recently acquired by the University, have been refitted and newly furnished for use as residence halls. They have accommodations for sixty students. The rooms are heated by steam and lighted by gas.

Diagrams of rooms with prices will be sent upon application to Mr. A. Woolsey, Superintendent of the Grounds, University Heights. Reservations will be made in the order of application.

Rooms in Residence Halls are rented upon the condition that all damage done to room or furniture be made good immediately by the tenant. All damage done to building or contents outside of any students' room, unless made good by the person doing the same, will be assessed by the superintendent of the grounds equally upon the tenants of the Hall or the division of the Hall affected as the authorities may decide. Tenancy of rooms may be terminated by the University at any time for violation of the published rules respecting Residence Halls.

Commodious houses are owned or rented by several Greek Letter Fraternities, to accommodate their members, affording rooms at prices ranging from \$80 to \$175 a year, including heat, light, and attendance.

Table Board

Table board is offered in private families at \$5.00 and \$5.25 per week. A college dining hall is maintained in East Hall, with accommodations for two hundred students. The University assumes no responsibility in the matter of table board.

LOAN FUNDS

The Deems Loan Fund

Upon the celebration, October 3, 1887, of the twenty-first anniversary of the Church of the Strangers, the late Rev. Dr. Charles F. Deems, its pastor, under whose leadership the church was organized in the University chapel, founded this fund. The moneys constituting it are to be lent from time to time to students, in convenient sums, on satisfactory security, to be repaid with interest, after their leaving college, at a date agreed upon.

The Gould Fund

In October, 1896, a loan fund was founded by Miss Helen Miller Gould, from which loans will be made to students of the University on conditions similar to those observed in connection with the Deems Fund.

The Charles Force Deems Memorial Loan Fund

Established 1905, as a memorial of their late pastor, Rev. Dr. Charles F. Deems, D.D., LL.D., by the Sisters of the Strangers, a

body of devoted women in the Church of the Strangers, New York City. Loans are made to students under the same conditions as those governing the Deems Fund.

SCHOLARSHIPS

All Scholarships may be withdrawn by the College Faculty at any time from the appointee upon his proving unfaithful to his duties as a member of New York University College.

Any one desiring to become a candidate for any one of the following scholarships, except the first named, is requested to address the Dean of the College not later than June 1, making a full statement of his attainments and of his plans for college work, and asking such questions as he may desire to have answered in regard to the award of the scholarships.

Preparatory School Prize Scholarships

The University College supports each year a number of preparatory school Prize Scholarships worth \$200 each, to be applied toward the payment of tuition fees of the first two years. One of these Prize Scholarships is in the gift of each of the high schools of New York City and vicinity from which the College has received students who have taken high rank and won honors during the College course. This Scholarship may, at the option of the principal, be awarded to a student entering in September or in February of each academic year. A few high schools which have sent large numbers of Freshmen to the University College, or have sent students to win distinguished honors, may have a gift of two Prize Scholarships, one of which shall be available for a student entering the College of Arts in September and one for a student entering in February. The bestowal of these scholarships will be made each year upon nomination by the principal of the school of a scholar whose rank, general conduct, high standing among his classmates and exceptional promise of usefulness make him, in the opinion of the principal, a student who will win honors in the College and reflect credit upon the school from which he comes. The authorities of the College will welcome an opportunity to confer with each principal respecting the nomination of the student for the Scholarship and to assist him in selection. These scholarships are open only to such students as are prepared to enter without condition. To maintain such scholarship, a student must remain free from conditions and must hold a creditable standing in scholarship. In special cases, a student who has

maintained an exceptionally high rank or proved himself of unusual worth and promise may be awarded a continuation of the Scholarship through the Junior and Senior years of the College course. These scholarships are open only to students who intend to take the full four years' course in the College of Arts and Pure Science. They are not available for students entering for the Medical Preparatory course of one or two years.

Foundation Scholarships

The University has in its gift a few Scholarships of 1832, which may be given as beneficiary Scholarships in specially deserving cases, each of which provides a part of the tuition fees of a student.

Thomas S. Baley Scholarship

Founded by Mrs. Hannah Ireland, endowed with \$5000. The income of the fund is paid to one or more students in the College of Arts in said University who may be in preparation for the Gospel Ministry. This Scholarship shall be awarded by the Chancellor of the University, who has also power to withdraw its benefit when the recipient has proved himself unworthy.

Gould Memorial Scholarships

These seven scholarships were founded and endowed with \$6000 each by Miss Helen Miller Gould, in memory of her father. They are as follows:

I. FIRST JAY GOULD SCHOLARSHIP. II. SECOND JAY GOULD SCHOLARSHIP. III. THIRD JAY GOULD SCHOLARSHIP. The nomination to each of these Scholarships is in the gift of the Founder.

IV. DELAWARE COUNTY SCHOLARSHIP. V. ROXBURY SCHOLARSHIP.

The candidate for the Delaware County Scholarship or for the Roxbury Scholarship must be a resident of Delaware County, New York, and a certain preference among candidates will be shown to residents of Roxbury and vicinity in said county.

VI. WESTERN SCHOLARSHIP.—The candidate for the Western Scholarship must be a resident upon the line of the Missouri Pacific Railway system, including the Iron Mountain Railway and leased lines. A certain preference among candidates will be shown to sons of persons connected with the railways above named.

VII. SOUTHWESTERN SCHOLARSHIP.—The candidate for the Southwestern Scholarship must be a resident upon the line of the Texas Pacific, the St. Louis Southwestern, or the International and Great Northern Railway. A certain preference among candidates will be shown to sons of persons connected with the railways above named.

Northrop Scholarship

Founded by Miss Ida Northrop and endowed with \$5000. The nomination to this Scholarship is in the gift of the Founder.

Ralph Hoover Shaw Scholarship

Founded by Professor and Mrs. Edward R. Shaw, in memory of their son, who died January 2, 1899, a member of the Class of 1900. Endowed with \$2500 to cover the yearly tuition of a deserving student in need of aid. Preference is given to applicants from Bellport, L. I., and from Yonkers, N. Y.

Irvington and Tarrytown Scholarships

Founded by Miss Helen Miller Gould. The former scholarship is awarded to one of the young men of the graduating class of the Irvington High School at Irvington, N. Y., and the latter in like manner to one of the young men of the graduating class of the Washington Irving High School at Tarrytown, N. Y., the scholar to be selected by the Principal of the school and the Board of Education in charge of the school. Should the appointee from the graduating class be unable to avail himself of the scholarship, an alternate is to be appointed by the Principal and the Board from among the graduates of the school. The appointee is to hold the scholarship for the full College course of four years. In case either scholarship is not filled under the above rules, the University will award the same to some deserving student, but for the period of one year only. Each scholarship is endowed with \$6000.

The Class of '90 Scholarship

Founded in 1905 by a gift of \$1000 by the Class of 1890. The income of the fund is to be used to pay in part the tuition of a student in the University College, School of Applied Science, or Graduate School, preference being given to any student recommended by the Class of 1890.

The Catlin Memorial Scholarships

Founded in 1907 by a bequest of \$10,000, by the late Miss Catherine L. R. Catlin, in memory of her brother, Charles M. Catlin, who graduated from the University College of Arts and Pure Science in 1848 with the degree of Bachelor of Arts, who received the degree of Master of Arts in 1851, and died in 1871. The income of the fund is for perpetual maintenance of tuition scholarships, at least one of which shall be awarded each year to a deserving student of the College of Arts and Pure Science.

The Charles S. Webb Classical Scholarship

Founded in 1910 by bequest of \$1000, of the late Charles S. Webb of the Class of 1851. The income of the fund is to be used to pay in part the tuition of a student taking the classical course in the College of Arts and Pure Science.

PRIZES

*Eucleian Prizes**A. Ogden Butler Trust*

This trust, consisting of \$5000, is held by the University for the benefit of the members of certain societies. One-seventh of the income from that half of the same which is held for the Eucleian Literary Society is devoted by the will of the Founder, A. Ogden Butler, a member of the Class of 1853, who died in 1856, to "Annual prizes to those two acting members of the Society who may in each year be the authors of the best two essays on any subject, of which the Chancellor of the University, with the Professors of Belles-Lettres and Greek, shall be the judges."

These prizes are given under the following rules:

1. All essays in competition in any year shall be put into the hands of the Professor of Belles-Lettres not later than three months before Commencement.

2. The prizes shall be conferred at Commencement, and the names of the recipients included in the annual catalogue.

German Prize

A prize of the value of \$50, founded by Mr. Herman Ridder, will be awarded at Commencement for the best essay on some topic connected with German literature. The subject for 1915-16 is: "The Influence of Lessing's *Emilia Galotti* on Goethe's *Clavigo*." The competition is open to all students who take German.

Sandham Oration Prizes

The income of the George Augustus Sandham fund is devoted to the maintenance of an oratorical contest open to Seniors and Juniors in the University College and in the School of Applied Science. Two prizes, of \$100 and \$75 respectively, will be awarded on the basis of excellence in the composition and delivery of original orations. The conditions of the competition are as follows:

1. The orations are to be written upon subjects chosen by the writers.
2. These orations must contain not less than 700 words, nor more than 1300.
3. Orations submitted for the contest must be mailed to the English Department not later than April 1.
4. Such orations are to be signed with a fictitious name; and the fictitious name, with the name of the writer, must be written on a card and inclosed in an envelope on the outside of which is to be inscribed the title of the oration. This envelope is to be mailed with the oration.

The orations thus presented will be submitted to a committee of judges, who will select a number, not to exceed eleven, on the basis of excellence in composition. The orations will then be returned to their authors, and the men thus designated will prepare for oral delivery of their orations at a preliminary contest, which will take place early in May. At this contest, and also at the final test, the excellence of the delivery will have equal weight with the excellence of composition in determining the decision of the judges. These judges will choose six men to speak for the prizes at the final contest, which will take place on Monday of Commencement Week in the Auditorium. No student who has won a prize in one competition is eligible to enter further competitions for these prizes.

The Frederick Seward Gibson Prize

This prize, being seventy (70) dollars, or the income of fifteen hundred (1500) dollars, was founded in 1901 from the estate of the late Frederick Seward Gibson, of the class of 1896, and is offered annually to undergraduates who are members in regular standing of the Senior class in the University College.

The prize is offered for an essay of high literary merit on a subject proposed by the Professor of English Literature as a proper subject for treatment in a literary form and approved by the College Faculty.

The essays offered in competition for this prize should contain not

more than five thousand words, be signed with a fictitious name, and delivered to the Dean of the College not later than the first day of April. The award will be made by judges appointed by the Professor of English Literature and the Dean of the College, and will be announced at Commencement.

The James Gordon Bennett Prize

This prize was established May, 1893, by Mr. James Gordon Bennett for "the best essay in English prose upon some subject of American governmental, domestic, or foreign policy of contemporaneous interest." The prize will be awarded at Commencement, in accordance with the following rules:

1. Competition to the prize shall be opened to any "undergraduate student of the Senior class, or special student of two years' standing, who shall have taken the prescribed course of the institution in Political Science and English Literature."

2. The subject shall be announced by the Faculty not later than the first day of July.

3. Competitors shall hand in their names to the Dean on or before the fifteenth day of January.

4. All essays in competition for the prize must be typewritten on white letter-paper of the prescribed size (8 x 10 inches).

5. The essay shall contain not less than two thousand five hundred (2500) words, nor more than five thousand (5000) words.

6. The essays shall be handed to the Dean on or before the first day of May.

7. Each essay shall be signed with an assumed name, and shall be accompanied by a sealed envelope indorsed with the said assumed name and containing the true name of the author.

8. The Committee of Award shall consist of the Professors of English Literature, of Political Science, and of History, or shall be a special committee appointed by the Faculty.

9. The Announcement of the award shall be made on Commencement Day. The prize is \$50 or the income of \$1000.

The subject assigned by the Faculty for year 1915-16 is "The Organization and Functions of the Federal Trade Commission."

The Samuel F. B. Morse Medal

Professor S. F. B. Morse provided in his will for a gold medal to be awarded for excellence in scholarship. In honor of the founder and his great contribution to the Science of Physics, the medal will be awarded to the student showing special ability in that depart-

ment. In the award of the medal general scholarship will be allowed to weigh in proportion to scholarship in Physics as one to two.

The Sherborne Vernon Damerel Memorial Prize

This prize, interest of the Sherborne Vernon Damerel Prize Fund of \$1000, given by Mr. and Mrs. George Damerel, in loving memory of their son, who died June 24, 1909, a member of the class of 1910, is awarded on Commencement Day, by vote of the joint Faculty, to a member of the Senior class of the University College or of the School of Applied Science who has shown an earnest endeavor in his studies and in the general welfare of his class and college, and who gives promise of a useful life.

In the selection of the recipient, emphasis is laid primarily upon qualities of manly character and influence, and secondarily upon marked ability, but in judging of a student's qualifications, very high scholarship shall not be regarded as indispensable.

The 1907 Medals for Debate

Immediately after their graduation, the class of 1907 pledged itself to give medals to any student who shall by competition earn a place upon a debating team representing the College of Arts and Pure Science or the School of Applied Science in any intercollegiate contest. In the year 1911, the Class generously extended this gift so that it will apply in case two or more teams in a given year represent the School at University Heights in intercollegiate debates. When a student wins a place upon debating teams, subsequent to his first, he is entitled to receive for each success of this kind a bar which will be attached to the Medal first won.

The Macdonald Memorial Prizes in Public Speaking

In January, 1913, the Class of 1909 established two prizes of twenty-five and fifteen dollars, respectively, for excellence in public speaking, and named them in memory of their first class president, William Stuart Macdonald, who was struck and killed by a train at Boardville, New Jersey, in March, 1908. Competition for these prizes is open to Freshmen who have taken Public Speaking in the College of Arts and Pure Science or in the School of Applied Science. The contest for 1915 will be one in the delivery of declamations, and will take place at the end of the spring term.

Twelve men will be selected from the courses indicated on the basis of ability in speaking; from whom, at a preliminary contest, eight speakers will be chosen for the final competition. Declama-

tions selected for this contest should be approved by the instructor in charge of the courses, and should not exceed one thousand words in length.

FELLOWSHIPS

A. Ogden Butler Fellowships

Two Fellowships, founded by Mr. Charles Butler, are offered each year to students completing the course in Arts, as incentives to Graduate Study, namely:

The A. Ogden Butler Classical Fellowship, endowed with \$6000.

The A. Ogden Butler Philosophical Fellowship, endowed with \$6000.

These Fellowships are equal in rank, and will be bestowed by the Faculty upon two members of the graduating class, standing as to scholarship in the uppermost third of the class. A student in order to receive the award of a Fellowship must have made such attainments in scholarship as, in the judgment of the Faculty, will justify him in pursuing advanced studies in the Liberal Arts. Further, the student must have enrolled himself as a candidate for the degree of Master from the University under such rules as may be prescribed. The work of the Fellow shall include research in the line of study for the encouragement of which the Fellowship is founded and shall also include teaching duties such as the Chancellor may appoint.

In case in any year the Fellowship be not awarded or the income of an awarded Fellowship become not payable because its incumbent has not met the conditions named, then the income of such Fellowship shall be devoted to the fund for Graduate Scholarships.

William H. Inman Fellowship

Founded by Miss Inman

The principal of this fund, amounting to \$5000, is held by the University, the income arising from the same to be used for the support of the William H. Inman Fellowship. This fellowship is to be awarded to a student completing an undergraduate course whose scholarship places him in the foremost third of his class, and whose attainments are such, in the judgment of the Faculty, as will qualify him to pursue advanced studies in Science. Further, the student must have enrolled himself as a candidate for the degree of Master from the University, under the rules prescribed. Further, he must serve for one year as a Demonstrator or Assistant in the Laboratory of Analytical Chemistry. But the last named condition may, for sufficient reasons, be suspended by action of the Faculty.

The tenure of the Fellowship is for one year, and it is to be known upon the Records of the University and announced in each annual Catalogue as the William H. Inman Fellowship.

GENERAL ANNOUNCEMENTS

Discipline

Each student upon entering is required to sign his name on the Matriculation Card, subscribing to the following pledge:

"We, whose names are hereunto attached by our personal signatures, being applicants for admission to the University College of Arts and Pure Science of New York University, do hereby pledge ourselves, on being admitted, to conform strictly and at all times to the Rules of the Institution, and by all proper means to promote its best interests."

Each student is thereupon assigned to a member of the Faculty, who is to act as his Special Adviser. The student must obtain from this Special Adviser the endorsement of his choice of studies, and of any subsequent alteration therein, and of any special action desired from the Faculty, before its submission to that body.

Every student is required to register with the Recorder of the Faculty on the first Monday or Tuesday of the fall term. Not later than 5 p. m. on Wednesday, September 22, 1915, he must file with the Recorder a card containing his choice of studies for the ensuing year, approved by his Special Adviser. Failure to comply with either of these rules will subject the student to a fine of five dollars in each instance.

The rules of the Faculty provide for prompt correspondence with the parent or guardian of each student in any case requiring it, and especially in case of unexcused absence or serious deficiencies in scholarship.

A printed copy of the rules governing students of the University College may be secured from the Secretary of the Faculty.

Term Reports, Examinations, Etc.

The name of each student admitted to the University College is entered upon a card by the Recorder. Here are recorded the conditions under which the student has been admitted; the result of every examination required of the student; a copy of any action that may have been taken by the Faculty respecting him, whether concerning his scholarship, attendance, or behavior. This card will be submitted upon request to the student's parent or guardian.

In the last week of each term, examinations are held, covering, in the case of each student, all the branches of study pursued by him.

Reëxaminations are allowed only in courses rated as prescribed for all students and in those included in the students' major. In all other courses conditions can be removed only by repeating the course in which the condition has been incurred or by taking a subsequent additional course of equivalent credit.

Every student must take not less than fifteen nor more than eighteen credits per week, unless a special schedule for a smaller number of hours is approved by the Faculty.

Requirements for Graduation

The Bachelor's Degrees in Arts, Pure Science and in Commerce are annually conferred at Commencement by the Chancellor upon the vote of the University Council.

The faculty of Arts and Science will recommend for such degrees students who shall have completed 126 credits in accordance with the rules and general plan of study described hereafter, and who shall in addition have presented a satisfactory thesis upon a subject approved by the Faculty. The student must submit the subject of his thesis, previously approved by his special adviser, to the Dean of the Faculty on or before December 20 of his Senior Year.

A typewritten copy of this thesis on paper of the prescribed size (8 x 10 inches) must be presented to the Dean of the Faculty on or before April 15. A fine of five dollars will be imposed upon each student who fails to comply with this rule. The thesis must include not less than two thousand (2000) nor more than three thousand (3000) words. The subject of the thesis must be related to one of the studies of the major which the student has been pursuing. An essay previously accepted as class work will not be received as a thesis.

Terms and Vacations

The year is divided into two terms:

The First Term begins on the Monday preceding the last Saturday of September, and continues until the nineteenth Saturday thereafter.

The Second Term begins on the Monday after the close of the First Term, and continues until Commencement, the nineteenth succeeding Wednesday.

The summer vacation extends from Commencement Day until the beginning of the First Term. The Christmas recess extends from the day before Christmas to New Year's Day, inclusive.

In addition to the vacations, the following holidays in term time are marked by a suspension of exercises, to wit: Washington's Birthday, at Easter, Thursday till Monday inclusive, Memorial Day, Election Day, Thanksgiving Day and the Friday and Saturday succeeding.

Commencement Week

Commencement Week extends from Saturday, June 5, to Wednesday, June 9, 1915, inclusive, including the following events:

Saturday, June 5, 12 M., annual meeting of the Phi Beta Kappa Society; 12.45 P.M., annual meeting New York University Historical Society.

Sunday, June 6, 4 P.M. In Auditorium, Baccalaureate Sermon.

Monday, June 7, 3.30 P.M. In Auditorium, Senior and Junior Orations, for the Sandham Prizes.

Tuesday, June 8, 2 P.M. and 8 P.M. Upon the Campus at University Heights, Class Day exercises.

8 P.M. In Auditorium, Freshman Declamations for the Macdonald Memorial Prizes.

Wednesday, June 9, 10.30 A.M. In Auditorium, Conferring of degrees on candidates of the College of Arts and Pure Science and the School of Applied Science.

Ethical and Religious Training

Chapel exercises at University Heights are conducted by Chaplains chosen by the University from among neighboring or other clergymen. Daily attendance at Chapel exercises is required of all the student-body at the Heights, with the exception of Seniors who are taking the full first-year work in one of the University's down town schools, and such other students as elect the substitutional work defined below.

A student is allowed eighteen (18) absences from Chapel during any one term. As often as his absences shall equal nineteen (19) in number, the student shall be required to submit within three weeks of the time of assignment of a subject, an *original*, ethical essay of not less than 1800 words upon a subject assigned by the Dean of his respective school, touching upon morals or religion. These themes are carefully graded and marked on the same basis as work covered by a class-room attendance of one hour daily for one term. Should the essay fall below passing grade, the student will be required to submit an essay upon another subject until such time as his work is of passing grade. Failure to submit an essay within the prescribed time, or to secure a passing grade, will count

as a condition in a one-hour course until such deficiency is removed.

As often as nineteen (19) absences are recorded against a student, an additional fee of \$2.50 will be added to his term bill, to defray the expense occasioned by the clerical work arising from the assignment of essay subjects and the reading and grading of essays submitted. Such part of that fee as is not required for this work, will be contributed to the library fund of the University.

When a student has been excused from all classes for five (5) days, his absence from Chapel for that time will likewise be excused. Absence for less than five consecutive days will count against him.

Chaplain, 1914-1915

Rev. Arthur H. Limouze, Pastor of the Northminster Presbyterian Church.

Young Men's Christian Association

A branch of this Association is maintained by a body of students. There is held under its auspices a weekly prayer-meeting every Thursday evening at 7.30 in their hall. Association Hall offers an assembly room, a social room and a room for games, for the use of all students who may become members of the Association. A Bible Class is held in the social room every Sunday morning. A salaried Secretary of the Association is appointed by the University.

Literary and Musical Societies

The Eucleian Literary Society holds stated meetings for the discussion of literary subjects. The Society owns a library of standard works which is increased from year to year by the income of the A. Ogden Butler bequest.

The Violet is the college annual and is published each year by the Junior class.

The Medley is a literary monthly published by this society.

The New Yorker is the college weekly published by the students.

The students maintain Glee, Banjo, and Mandolin Clubs. A competent director is secured and concerts are given in neighboring cities and at home. The Music Room in Gould Hall is equipped with a fine piano for the use of these organizations.

Work in the Literary and Musical Societies and on the college publications is encouraged as part of college training.

Physical Training and Athletic Sports

Gymnastic exercise of one hour's duration is required on three afternoons weekly from Sept.-June Freshmen, and on two after-

noons weekly from Sophomores during the period from November 1 to April 1, and on three afternoons weekly from Feb.-Sept. Freshmen during the period from Feb. 1 to June 1. The work for Juniors and Seniors is elective.

Undergraduate students at the beginning of their Freshman year undergo a physical examination, and a complete record is made of their physical condition. This examination is repeated from time to time, and valuable information concerning the growth and development of the individual is thus obtained. From these figures an anthropometric chart is made out, which shows the relation of the individual to the normal standard, or average in size, strength, and symmetry, and points out the deficient parts, for which exercises are prescribed.

Exhibitions and contests are held at various times throughout the year. Prizes are awarded at the end of the year to students showing the greatest improvement in physical condition.

Athletic Sports in the University are under the direction of the University Athletic Association, the Faculty of Arts and Science, the Faculty of Applied Science and the Director of Athletics, Mr. Frank Cann.

Grounds and Buildings

The Campus at University Heights is a tract of thirty-eight acres, situated upon the bluff overhanging the eastern bank of the Harlem River, at an elevation of one hundred and seventy-five feet, and commands beautiful views in all directions. The grounds have been carefully graded, walks and roads laid out, trees and shrubs planted, and with the beautiful, broad lawns and fine outlook compare favorably with any college campus in the world. A description of the athletic field and tennis courts will be found below.

The Memorial Library, begun in 1895 and completed in 1900, is one of the five or six greatest library buildings in the United States. Its general reading room is second in beauty to few, if any, rooms of similar character in the world. In addition to the library proper the building contains the University Auditorium, with a seating capacity of fifteen hundred, and several rooms for administration offices. The building was the gift of Miss Helen Miller Gould, in memory of her parents, Mr. and Mrs. Jay Gould.

The Hall of Fame, comprising Museum and Colonnade, just west of the Library, is unique among college buildings, and is too well known to require description. The Hall of Fame has an important educational function for the students of the College and is rich in inspiration.

Language Hall contains the Faculty room, offices of the Deans and Recorder and class-rooms. It is a fireproof building, equipped with the latest systems of heating and ventilation.

Cornelius Baker Hall of Philosophy, a new fireproof lecture and recitation building, was the gift of Mrs. John S. Kennedy (1912) in memory of her father, Cornelius Baker, a member of the University Council 1834-1838.

The Havemeyer Chemical Laboratory is a building devoted exclusively to the laboratories and class-rooms of the Department of Chemistry; a full description will be found on the following page.

Charles Butler Hall is the old mansion which was standing on the grounds at the time of the University's purchase. It has been remodeled for the class-rooms and laboratories of the Department of Physics.

Gould Hall, the new Residence Hall, stands on the eastern edge of the Campus, nearly a quarter of a mile distant from the Library. It is fully described elsewhere.

The Andrew H. Green Memorial Laboratory, erected 1904 by Mr. Frederick W. Devoe, has drawing-rooms on the first floor, and the laboratories and lecture-room of the Department of Biology on the second floor.

The College Gymnasium at University Heights is a building measuring 60 feet by 100 feet, with a running track in the gallery upon which twenty laps make one mile. Sets of apparatus of the latest patterns have been provided by the liberality of the late Mr. David Banks. The building, which is heated by steam and lighted by electricity, has a floor surface of 6000 square feet and contains director's office, examination room, dressing-rooms, and bath rooms. In the dressing-rooms are ample locker accommodations.

The Athletic Ground is called the Ohio Field, in honor of several former residents of Ohio, for many years citizens of New York, who contributed toward the establishment of University Heights. This field has a quarter-mile cinder track, and ample space for football, baseball, and general athletics. There has recently been added a covered grandstand with a seating capacity of 1200. Upon the west side of the Ohio Field is the lawn tennis ground, comprising four courts, each of the full regulation size.

Library and Laboratory Facilities

The University Library, at University Heights, contains sixty-five thousand volumes, and includes the Oswald Ottendorfer Library of Germanic Literature, the La Garde Library of Semitic Languages,

and the Hübner Classical Library. Eighteen departments have each their own seminar rooms. These seminar rooms contain the working libraries of the departments, and are open to advanced students. The library is catalogued according to the Dewey decimal system. Books may be drawn by students for use in their rooms.

The Reading Room, for newspapers and magazines, is situated in the gallery of the Auditorium. Here will be found daily and weekly papers, and the best popular magazines, and domestic and foreign scientific reviews. The income of the *Burritt Hamilton Shepard Fund*, which was established upon Founders' Day, April 18, 1889, by the late Mr. Elliott F. Shepard, in memory of his brother, who died while a student of the University, is devoted entirely to supplying the Reading Room.

The Havemeyer Chemical Laboratory, provided by the liberality of Mr. William F. Havemeyer, in memory of his father and brother, is a building three stories in height and occupies an area of sixty by seventy feet. The lowest story contains workshops and storerooms as well as an even temperature room for gas analysis and an Assay Laboratory. The next floor contains a spacious lecture room, with all appliances for lighting and ventilation, as well as for experimentation in pure and applied chemistry; a laboratory for advanced work in chemical research, and the private laboratory of the Professor of General Chemistry. The top floor contains the private laboratory of the Professor of Analytical Chemistry, and large laboratories for qualitative and quantitative analysis, together with a balance room, a room for work with noxious gases, and a library. All the laboratories are provided with the usual appliances, as well as with lines conveying steam, compressed air, and suction, to the various desks, and oxygen and other gases to appropriate working tables. The ventilation throughout is by forced draft.

The Laboratory of the Department of Geology and the Geological Museum are located temporarily in the Hall of Philosophy. The collection numbers about 30,000 specimens, and the laboratory is equipped with machinery for cutting and polishing rocks and fossils.

The Laboratory of the Department of Physics occupies three floors in Charles Butler Hall. The laboratory of tests is in the Engineering Building. They are equipped with the usual apparatus, and are sufficiently large to allow the individual student space for any original investigations.

The Laboratory of Biology occupies the entire second floor of the Green Laboratory building and is equipped with a small vivarium, the necessary microscopes and microtomes, and supplied with abundant material for the work in this department.

COURSE OF STUDY

General Rules

Upon admission to the Freshman class the student must enter that section of the class for which he has passed the entrance requirements. A student who has completed the prescribed courses of Section A becomes a candidate for the degree of Bachelor of Arts upon the completion of any major, two minors and a sufficient number of free electives to bring the total number of credits up to 126. He may at his option become a candidate for the degree of Bachelor of Science by choosing a major from the Exact and Natural Science Group.

A student who has completed the prescribed courses of Section B becomes a candidate for the degree of Bachelor of Science upon the completion of any major, two minors and a sufficient number of free electives to bring the total number of credits up to 126.

Each student must enroll for not less than 15, nor more than 18 credits each semester.

PRESCRIBED SUBJECTS

The following subjects (sixty credits in Section A and fifty-four credits in Section B) are prescribed for all students in the two Sections respectively, and with the exceptions noted on p. 55 must be completed by the end of the Sophomore year: English 10, 20=6 credits; either French or German 11, 21 or 12, 22 and 30, 40=12 credits; Mathematics 10, 20 or 11, 21=6 credits; Philosophy 30, 40=6 credits; History 30, 40=6 credits; either Physics 10, 20 or 30, 40 or Chemistry 10, 12, 20, 22, or 11, 13, 21, 23=6 credits; either Biology 30, 40 or Geology 30, 40=6 credits; Public Speaking 20=1 credit; Personal Efficiency=1 credit and Physical Training 10, 20, 30, 40=4 credits.

And in addition for Section A, either Latin 10, 20 or Greek 11, 21=6 credits.

NOTE: The alternative ancient language may be offered in Section A in place of 6 of the 12 credits in modern language.

MAJOR AND MINORS

A *major* will consist of eighteen credits in sequential courses (normally three credits per semester for three years), and a graduation thesis in one department. The choice of a *major* must be made before the end of the Sophomore year and the *major* must be continued through the Junior and Senior years.

Each minor will consist of twelve credits (normally three credits per semester for two years), in one department.

The first minor may be chosen in any department other than that of the

major, the second minor must be chosen from another group than that of the major, and two minors may not be taken in one department.

A statement of the courses constituting majors and minors in each department will be found under the heading "Description of Courses" for that department. Any change from one major or minor to another must receive the prior approval of the Scholarship Committee and will be permitted only upon the distinct understanding that all the courses prescribed in the major finally chosen shall be completed before graduation.

The more important departments of instruction are classified in three groups as follows:

GROUP I	GROUP II	GROUP III
Language and Literature	Social Science and Philosophy	Exact and Natural Science
Greek	History	Mathematics
Latin	Political Science	Physics
English	Economics	Chemistry
German	Sociology	Biology
French	Philosophy	Geology
Spanish		

Subjects open to student election but not included in the above classification may be chosen as free electives.

FREE ELECTIVES

Courses not taken as prescribed courses and not included in the student's major and minor sequences may be chosen as free electives to complete the 126 credits required for graduation, provided that the prerequisites have been passed. First year courses in a foreign language will not be accepted for credit towards a degree unless followed by a second-year course in the same language with the exception that credit may be given, with the approval of the head of the department, for a year of elementary Spanish.

Special Advisers

In making his choice of courses the student must consult his Special Adviser and must elect such studies as manifestly will be profitable to him.

After matriculation each student is assigned to a member of the Faculty who is to act as his Special Adviser during the Freshman and Sophomore years. Before the beginning of the Junior year, when the student signifies his choice of a major, he will be assigned to a member of professorial rank of the department of his major, who will act as his Special Adviser and upon whose advice and with whose consent he will select his studies for the remainder of his course.

Senior Electives

Seniors receiving special permission of the Faculty may elect as part of their required work certain of the courses of instruction in the Graduate School, School of Pedagogy and School of Commerce, Accounts and Finance.

A course so taken will be counted as part of the required work for the degree of bachelor, but not as part of the preparation for the degree of Master or Doctor. In the announcements of the Graduate School every course open to election by Seniors under this rule is marked with an asterisk.

Seniors who intend to qualify for teaching in the public schools of New York City should notice that they are required to complete a minimum course of study approved by the State Commissioner of Education for the training of teachers. The following subjects are specified: Psychology—General and Educational, 90 hours; History of Education and Principles of Education, 90 hours; Method in Teaching, 60 hours; Observation Work, 20 hours.

The following courses in the School of Pedagogy, supplementing work given in the College of Arts and Pure Science in the field of Psychology, are suggested as including the work which will enable the student to qualify under this requirement: Pedagogy B 1 Principles of Education, B 2 General Method, B 10 Educational Psychology, B 12 History of Education, B 3 Method in Arithmetic, and B 5 Methods in Geography and Reading. It is expected that a course in Observation will be arranged for the year 1915-1916.

Philosophy 21, taken in the University College, and B 10, taken in the School of Pedagogy, will together satisfy the State requirement of 90 hours in General and Educational Psychology.

Students who may have completed 96 credits of college work may elect for their senior year the following arrangement.

1. Not less than three credits each term, which must include the Senior courses of the major besides the time required for the Bachelor's Thesis.

2. In place of other work in the University College, the first year's work of either the University Medical College, the University Law School, the University School of Pedagogy, or any one of the Theological Seminaries represented in the University Senate may be pursued.

Upon the completion of the required college work to the satisfaction of the Faculty, and the presentation of a certificate from the Faculty of one of the professional schools above named testifying to the completion of the first year's course of the school, the candidate will be eligible for the Bachelor's Degree.

Students under twenty-one years of age must bring the written request of parents or guardians in order to obtain permission to elect the first year of a professional school, as a part of the fourth year of the undergraduate course.

It is strongly urged that students should plan to give their entire fourth year to college work proper, unless exceptional attainments and maturity of age make professional study advisable.

NOTE: Students who expect to avail themselves of this privilege should so arrange their choice of studies that they may complete their two minors by the end of the Junior year.

The Committee on Scholarship, acting under the instructions of the Faculty, may allow modifications in the details of the above regulations in exceptional and meritorious cases.

Classification of Students

All students will be ranked in the several classes as follows:

Freshmen—Those having less than 26 credits.

*Sophomores—Those having 26 to 57 credits, inclusive.

Juniors—Those having 58 to 90 credits, inclusive.

Seniors—Those having 91 to 126 credits, inclusive.

HONORS SYSTEM

1. A student may become a candidate for Honors in his major subject.

2. Candidacy must be announced after the end of the Sophomore year and before the beginning of the Junior year. The student must have attained a grade of A or B in all courses thus far taken in the department chosen for his major, and shall not have attained a grade lower than C in more than one course of his first two years.

3. If, during the progress of the Honors study, the Candidate receives more than one grade below B for courses included in the Honors series, he thereby ceases to be a candidate for Honors. He may proceed toward his degree in the usual way, except that any course credit given for collateral reading already accomplished, as specified below, shall be placed against the requisite number of free elective units; and thereafter no such reading shall replace any such electives required to complete his 126 semester hours.

4. The candidate shall, in addition to passing with high grades the regular courses included in his major and two minor series, take certain extra work involving reading or other independent study. A specific statement of the reading required and of the nature and amount of other work demanded, signed by the head of the department in which Honors are sought, must be filed by the candidate with the Recorder at the beginning of each year of study for Honors. This work will be given 3 hours per week semester credit in lieu of part of the free elective courses of the Junior and Senior years, and will require at least 10 hours per week of the student's time.

*All entrance conditions must be removed before promotion to Sophomore standing.

5. No courses anticipated by admission to advanced standing may be counted in the Honors series.

6. At the end of each term a preliminary written examination will be held covering the Honors reading of that term. At the end of the Senior year a final examination, a part of which at least shall be oral, must be taken, covering the entire ground of the Honors Series. It shall be given by a committee composed of the professorial members of the department concerned, with such other members of the faculty as may be designated by the head of the major department with the approval of the Dean.

7. The thesis must be of a grade of A or B.

8. Honors are conferred by vote of the Faculty upon the successful completion of the Honors course and when so conferred will be printed upon the Commencement program and entered upon the students' diploma.

OUTLINE OF COURSES

FRESHMAN YEAR

September-June Division

Section A

<i>First Term</i>	<i>Credits</i>	<i>Second Term</i>	<i>Credits</i>
Latin 10 } or Greek 11 }	3	Latin 20 } or Greek 21 }	3
English 10.....	3	Public Speaking 20.....	1
Mathematics 10 or 11.....	3	English 20.....	3
Other Language.....	3	Mathematics 20 or 21.....	3
Elective.....	3	Other Language.....	3
Physical Training 10.....	1	Elective.....	3
Physical Training 11.....	1	Physical Training 20.....	1
	17		17

Section B

English 10.....	3	English 20.....	3
Modern Language.....	3	Public Speaking 20.....	1
Mathematics 11.....	3	Modern Language.....	3
Physics 10 or Chemistry 10, 12 or 11, 13 }	3	Mathematics 21.....	3
Elective.....	3	Physics 20 or Chemistry 20, 22 or 21, 23 }	3
Physical Training 10.....	1	Elective.....	3
Physical Training 11.....	1	Physical Training 20.....	1
	17		17

Students who present for admission equivalents for prescribed courses in the departments of French and German may substitute for those prescribed courses equal credits from the list of Freshman electives given below, subject to examinations for such advanced credit at the option of the departments concerned.

List of Freshman Electives, Section A and B

Greek 11, 21	Mathematics 11, 21
Latin 10, 20	Chemistry 10, 12, 20, 22 or 11, 13,
French 10, 20, 11, 21, 12, 22	21, 23
German 10, 20, 11, 21, 12, 22	Physics 10, 20
History 30, 40	

Section C

MEDICAL PREPARATORY COURSE

General Statement

Requirements for admission to the University and Bellevue Hospital Medical College of New York University include one year of college work in addition to graduation from an approved four-year high school course or its equivalent. This year of college work must include courses in Physics, Chemistry, and Biology. To meet this requirement the University College offers a Medical Preparatory Section in its Freshman year which includes these required subjects, the certificate of completion of which entitles the student to admission to the Freshman Class of the Medical College.

This course is offered in two divisions; the first, for those completing their secondary preparation in June, will extend throughout the regular college year from September to the following June, the second, for those completing their high school course or its equivalent in January, will extend from January 31 to September 23, 1916. A student who is prepared for college at the middle of the year will thus be enabled to enter the Medical School the following October and save one year's time in the preparation for his profession.

Admission

For requirements for admission to the Medical Preparatory Year (Section C of the Freshman Class) see p. 14.

Matriculation

Matriculation and registration will follow the general regulations printed on p. 39 except that students entering the February-September division may matriculate and register at any time during the week preceding the opening of the term.

Fees

For regulations concerning the amount and times of payment of tuition and other fees see p. 28.

Calendar

The dates of beginning and ending the college year, the vacations and the holidays of the first (September-June) division will be the same as those of the regular college year, as printed on p. 40.

The second (February-September) division will begin on January 31 and will continue to September 23, with the following holidays and vacations: April 20-24 inclusive, Easter recess; May 30, Memorial Day; June 5-10, Commencement recess, and July 4, Independence Day.

FRESHMAN YEAR

Section C

MEDICAL PREPARATORY COURSE

September-June Division

<i>First Term</i>		<i>Second Term</i>	
English 10	3	English 20	3
German 11	}	German 21	}
or		or	
French 11	3	French 21	3
Physics 11	4	Physics 21	4
Chemistry 10, 14 or 11, 15	4	Chemistry 20, 24 or 21, 25	4
Biology 11	4	Biology 21	4
Physical Training 10	1	Physical Training 20	1
<hr/>		<hr/>	
19		19	

A student who has completed Section C, the Medical Preparatory course of the Freshman year, and who desires to pursue the college course before taking up his professional studies is admitted to the Sophomore class and becomes a candidate for the degree of Bachelor of Science upon the completion of the requirements for graduation with such modifications as may be approved by the committee on Scholarship.

FRESHMAN YEAR

*February-September Division**Sections A, B, and C*

New York University, in order to meet the needs of the large and increasing body of High School students who are graduated at the middle of the school year, established in 1913 a February-September Division of the Freshman class in the School of Applied Science and in the Medical Preparatory section of the Freshman class of the University College.

The success of this new departure has been such that the University now offers *all* the regular courses of the Freshman year of the University College to those who desire to enter in February and who meet the admission requirements. (For School of Applied Science Course see Applied Science Bulletin.)

These courses, for the year 1916, will extend from January 31 to September 23. Their successful completion will enable students admitted in February to enter, with full standing, the Sophomore class of the University College in the fall of the same year, or upon completion of the Medical Preparatory section to enter in October the first year of the University and Bellevue Hospital Medical School. Students who avail themselves of the opportunity offered by these February-September courses will be able to save one year's time in preparation for the college degree, or for the medical profession.

FRESHMAN YEAR

*February-September Division**Section A*

<i>February-June</i>	<i>Credits</i>	<i>June-September</i>	<i>Credits</i>
Latin 10 or Greek 11.....	3	Latin 20 or Greek 21.....	3
English 10.....	3	English 20.....	3
Mathematics 10 or 11.....	3	Mathematics 20 or 21.....	3
Other Language.....	3	Other Language.....	3
Public Speaking 20.....	1		
Physical Training 10.....	1		

And 2 or 3 additional credits the first term and 4 or 6 credits the second term from the list of electives given below.

Section B

English 10	3	English 20	3
Modern Language	3	Modern Language	3
Mathematics 11	3	Mathematics 21	3
Public Speaking 20	1		
Physical Training 10	1		

And 5 or 6 additional credits the first term and 7 or 9 the second term from the list of electives given below. Either Physics or Chemistry must be chosen.

Greek 11	3	Latin 20	3
Latin 10	3	French 20, 21, 22	3
French 10, 11, 12	3	German 20, 21, 22	3
German 10, 11, 12	3	Mathematics 21	3
Mathematics 11	3	Chemistry 11, 14 and 21, 24 ..	6
Physics 12	2	Physics 22	4
History 30	3	History 40	3
Greek 21	3		

Section C

MEDICAL PREPARATORY COURSE

February-June

English 10	3
German 11 }	3
or }	
French 11 }	3
Physics 12	2
Biology 11, 21	8
Physical Training 10	1

 17
June-September

English 20	3
German 21 }	3
or }	
French 21 }	3
Physics 22	6
Chemistry 11, 14 and 21, 24. . .	8

 20
Section A and B

SOPHOMORE YEAR

(Prescribed subjects must be completed by the end of the Sophomore year, with the exception that in Section A, 6 credits in one science and 6 credits in Philosophy, and in Section B, 6 credits in Philosophy, may be deferred to the Junior year.)

Physical Training 30, 40—2 credits.

At least 15 credits each term from the list of Sophomore subjects given below:

Greek 11, 21, 30, 40	Economics 30, 40
Latin 10, 20, 30, 40, 31	Mathematics 11, 21, 30, 40
English 30, 40, 31, 41	Chemistry 10, 12, 11, 13, 20, 22, 21, 23, 16, 26
Public Speaking 30, 40	Physics 10, 20, 30, 40
French 10, 20, 11, 21, 12, 22, 30, 40	Biology 30, 40
German 10, 20, 11, 21, 12, 22, 30, 40	Geology 30, 40
Philosophy 30, 40	
History 30, 40	

TWO-YEAR MEDICAL PREPARATORY COURSE

The Faculty of the University College offers a Two-Year Medical Preparatory Course for the benefit of those who desire a broader cultural foundation for their professional studies. Upon the completion of the Freshman year, Section C, as described above, the student may elect for his second or Sophomore year the following schedule:

<i>First Term</i>	<i>Credits</i>	<i>Second Term</i>	<i>Credits</i>
Chemistry 16	3	Chemistry 26	3
or		or	
Biology 50		Biology 60	
French 30	3	French 40	3
or		or	
German 30		German 40	
History 30	3	History 40	3
or		or	
Philosophy 30		Philosophy 40	
Physical Training 30	1	Physical Training 40	1

And sufficient credits from the list of electives open to Sophomores to bring the total number of credits up to at least sixteen each term.

JUNIOR AND SENIOR YEARS

The requirements of the Junior and Senior years are the completion of one major and two minors, a graduation thesis and the election from subjects not already taken and credited of a sufficient number of credits to bring the number of credits each term to a total of 15.

FOUR-YEAR COLLEGE COMMERCE COURSE

New York University, recognizing the need and demand for a college course that will prepare young men for responsible positions in the business

world and at the same time conserve the advantages of a regular and typical college course, offers to the students entering the Freshman class of the University College in September, 1915, and thereafter, a full four-year curriculum in Commerce leading to the degree of B.S. in Commerce.

The course will be given at University Heights and will constitute an integral part of the work of the University College under the control of the Dean and Faculty. The requirements for admission will be the same as for Sections A or B of the Freshman class. Students of the Commerce Course will be regular members of the University College and subject to the general rules of the Faculty.

OUTLINE OF COMMERCE COURSE

Freshman Year

The work of Freshman year will be identical with that of Sections A and B, with Spanish added to the list of electives.

Sophomore Year

<i>First Term</i>	<i>Credits</i>	<i>Second Term</i>	<i>Credits</i>
Com. 30 (Econ. 30) Economics	3	Com. 40 (Econ. 40) Econ. Prob-	
Com. 31 Business English.....	2	lems.....	3
Com. 32 (Econ. 50) Corporation		Com. 41 Business English.....	2
Finance.....	2	Com. 42 (Econ. 60) Money and	
Com. 33 (Pol. Sci. 50) American		Banking.....	3
Government.....	3	Com. 43 Bookkeeping.....	2

And sufficient credits from the list of electives open to College Sophomores to bring the total number of credits up to not less than 16 and not more than 18 per term.

Junior Year

<i>First Term</i>	<i>Credits</i>	<i>Second Term</i>	<i>Credits</i>
Com. 50 Business Organization	3	Com. 60 Business Organization	3
Com. 51 Accounting.....	2	Com. 61 Accounting.....	2
Com. 52 Econ. Geography.....	2	Com. 62 Econ. Geography....	3
Com. 53 Commercial Law.....	3	Com. 63 Investment and Specu-	
		lation.....	2

And sufficient credits from the list of electives open to College Juniors to bring the total number of credits up to not less than 15 and not more than 18 per term.

Senior Year

<i>First Term</i>	<i>Credits</i>	<i>Second Term</i>	<i>Credits</i>
Com. 70 (Econ. 51) Marketing	3	Com. 80 (Econ. 61) Transporta-	
Com. 71 Statistics and Cost Find-		tion	3
ing	2	Com. 81 Cost Accounting	2
Com. 72 Advertising & Selling . .	2	Com. 82 Foreign Trade	2
Com. 73 Public Address	1	Com. 83 Public Address	1

And sufficient credits from the list of electives open to College Seniors to bring the total number of credits up to not less than 15 nor more than 18 per term.

In addition, each Senior is required, at the beginning of Senior Year, to select a subject for a thesis on a Commerce subject, approved by the head of the Commerce department. This thesis will be developed in a Senior Seminar course.

Upon the completion of 126 credits and the submission of an accepted thesis, a student will be recommended for the degree of B.S. in Commerce.

General

The following non-technical prescribed credits must be completed by the end of the Sophomore year:

English 10-20, 6 credits; German or French 11, 21 or 12, 22 and 30, 40, 12 credits; Mathematics 10, 20 or 11, 21, 6 credits; History 10, 20, 6 credits; Physics 10-20 or 30-40 or Chemistry 10-20, 12-22 or 11-21, 13-23, 6 credits; Public Speaking 20, 1 credit; Personal Efficiency, 1 credit and Physical Training 10-20, 30-40, 4 credits. The following must be completed by the end of the Junior year: Philosophy 30, 40, 6 credits. Total, 48 credits.

DESCRIPTION OF COURSES

ASTRONOMY

[50. DESCRIPTIVE ASTRONOMY.—Recitations and lectures.

First term.

Professor Edmondson.

3 credits.]

[60. DESCRIPTIVE ASTRONOMY.—A continuation of Course 1.

Second term.

Professor Edmondson.

3 credits.]

(Astronomy 50 and 60 will not be given during 1915-1916.)

BIOLOGY

Major: Biology 30-40; 50-60; 70-80.

Minor: Biology 30-40; 50-60.

30-40. GENERAL BIOLOGY.—Lectures and Laboratory exercises. Study of selected forms of plant and animal life.

First and second terms.

Professor Bristol.

3 credits.

Mr. ———.

11-21. GENERAL BIOLOGY (Medical Preparatory).—Lectures and Laboratory exercise. Study of selected forms of plant and animal life.

First and second terms.

Professor Bristol.

4 credits.

Mr. Watkins.

Mr. Bagg.

Mr. Clark.

50-60. COMPARATIVE ANATOMY.—Lectures and Laboratory exercises. Study of Vertebrate types.

First and second terms.

Professor Bristol.

Mr. Watkins.

3 credits.

70-80. VERTEBRATE ZOÖLOGY.—Lectures and Laboratory exercises. May include Histology.

First and second terms.

Professor Bristol.

Mr. Watkins.

3 credits.

61. ELEMENTARY PRINCIPLES OF EVOLUTION.—Lectures and Recitations. This course is designed for Juniors and Seniors who have no technical knowledge of Biology, and who may be interested in the subject.

Second term.

Professor Bristol.

2 credits.

CHEMISTRY

Major: 16 and 26; (31, 32, 41, 42) or (30-40); 30-40 or 52-62.

Minor: 16-26; 31, (32, 41, 42) or (30-40).

10-20. INTRODUCTORY GENERAL CHEMISTRY.—Introductory course in inorganic chemistry, for students not previously prepared in chemistry. To be accompanied by Chemistry 12-22 or 14-24. Two lectures and one quiz hour weekly.

First and second terms.

Professor Hill.

Mr. Hasely.

2 credits each term.

11-21. GENERAL CHEMISTRY.—(Prerequisite: High School Chemistry.)

A study of the facts and theories of general chemistry, to be accompanied by Chemistry 13-23 or 15-25. Two lectures and one quiz hour weekly.

First and second terms.

2 credits each term.

Professor Hill.

Dr. Oesper.

Mr. Hasely.

Mr. Amon.

12-22. EXPERIMENTAL CHEMISTRY.—Elementary laboratory experimentation, for College Freshmen primarily, to accompany Chemistry 10-20, without which it may not be taken. Two laboratory hours weekly.

First and second terms.

1 credit each term.

Assistant Professor Simmons.

13-23. ADVANCED EXPERIMENTAL CHEMISTRY.—Laboratory exercises on selected topics, to accompany Chemistry 11-21 for College students. Two laboratory hours weekly.

First and second terms.

1 credit each term.

Dr. Farnau.

14. EXPERIMENTAL CHEMISTRY.—Elementary laboratory experimentation, for Medical Preparatory, Civil Engineering and Mechanical Engineering Freshmen taking Chemistry 10. Four laboratory hours weekly.

First term.

2 credits.

Mr. Hasely.

Mr. Masson.

Mr. Mock.

24. INTRODUCTORY QUALITATIVE ANALYSIS.—A short course in Qualitative Analysis, for Medical Preparatory, Civil Engineering and Mechanical Engineering Freshmen taking Chemistry 20. Four laboratory hours weekly.

Second term.

2 credits.

Assistant Professor Simmons.

Mr. Hasely.

Mr. Masson.

Mr. Mock.

15-25. QUALITATIVE ANALYSIS.—A course in Systematic Qualitative Analysis, for Medical Preparatory, Civil Engineering and Mechanical Engineering Freshmen taking Chemistry 11-21. Three laboratory hours weekly and one quiz hour.

First and second terms.

2 credits each term.

Assistant Professor Simmons.

Mr. Hasely.

Mr. Amon.

Mr. Masson.

Mr. Mock.

16-26. **QUALITATIVE ANALYSIS.**—A complete course in Systematic Qualitative Analysis, including study of the acid radicals, dry analysis, and spectroscopic analysis, for Chemical Engineering Freshmen and for College Sophomores electing a major series in chemistry. Seven laboratory hours and one quiz hour weekly.

First and second terms.

Professor Hill.

Mr. Silver.

3 credits each term.

30-40. **QUANTITATIVE ANALYSIS.**—(Prerequisite: Chemistry 26.) Introductory laboratory course in volumetric and gravimetric analysis, with weekly conference. Laboratory 7 hours, quiz 1 hour.

First and second terms.

Assistant Professor Simmons.

3 credits each term.

50-60. **TECHNICAL QUANTITATIVE ANALYSIS.**—(Prerequisite: Chemistry 40.) Laboratory work in sanitary analysis of air and water and exercises in fire assaying for the useful metals. To alternate with Chemistry 70-80. Given in year 1915-16. Laboratory 6 hours.

Dr. Oesper.

First and second terms.

3 credits each term.

70-80. **TECHNICAL QUANTITATIVE ANALYSIS.**—(Prerequisite: Chemistry 40.) Laboratory course in gas and food analysis. To alternate with Chemistry 50-60. Given in year 1916-1917. Laboratory 6 hours.

First and second terms.

Dr. Oesper.

3 credits each term.

61. **TECHNOLOGICAL CHEMISTRY.**—(Prerequisite: Freshman Chemistry.) Lectures on fuels, furnace gases, and thermo-chemical calculations. Lectures 2 hours.

Assistant Professor Simmons.

Second term.

2 credits.

63. **INDUSTRIAL CHEMISTRY.**—(Prerequisite: Chemistry 40 and 41.) Lectures on application of chemistry in the industries, with visits to industrial plants. To alternate with Chemistry 81. Given 1915-16. Lectures 3 hours.

Dr. Oesper.

Second term.

3 credits.

81. **INDUSTRIAL CHEMISTRY.**—(Prerequisite: Chemistry 40 and 41.) Lectures on the application of chemistry in the industries, with visits to industrial plants. To alternate with Chemistry 63. Given 1916-17.

Second term.

Dr. Oesper.

3 credits.

31-41. ORGANIC CHEMISTRY.—(Prerequisite: Chemistry 26.) Study of the aliphatic and aromatic series of carbon compounds and of the nitrogen bases. Lectures, 2 hours. Dr. Farnau.

First and second terms.

2 credits each term.

32-42. ORGANIC CHEMICAL EXPERIMENTATION.—Laboratory course, two hours weekly, to accompany Chemistry 31-41 for College students.

First and second terms.

Dr. Farnau.

1 credit each term.

41. ORGANIC SYNTHESIS.—(Prerequisite: Chemistry 41.) Preparation of organic compounds and study of type reactions. Laboratory, 8 hours.

First term.

Dr. Farnau.

3 credits.

52-62. PHYSICAL CHEMISTRY.—(Prerequisites: Chemistry 41; Physics 10, 20; Mathematics 30, 40.) Lectures on theoretical chemistry, three hours weekly.

Dr. Farnau.

First and second terms.

3 credits each term.

71. PHYSICAL CHEMICAL EXPERIMENTATION.—Laboratory exercises on the methods of physical chemistry. Laboratory 8 hours.

Dr. Farnau.

First term.

3 credits.

72. ADVANCED INORGANIC PREPARATIONS.—Laboratory 10 hours.

4 credits.

Dr. Oesper.

82. CHEMICAL RESEARCH.—Laboratory work in connection with thesis for Chemical Engineering Seniors and College Seniors taking a Major Series in Chemistry. Laboratory 9 hours, conference 1 hour. Students are assigned to individual members of the departmental faculty.

4 credits.

NOTE: The Chemistry courses of the February-September Division of the Freshman class will be given wholly in the June-September Term.

COMMERCE

In addition to pursuing the following courses, students in the Commerce Group will be required to make collective and individual visits to business establishments in Greater New York and report thereon. Coöperation of business executives is assured in lectures and conferences. The formal courses are to be supplemented by extensive use of the commercial laboratory which New York represents.

For instruction in modern languages, Commerce students are incorporated into the regular language courses of the College of Arts.

Courses 30 to 43 are given in 1915-16, and annually thereafter.

30. **ECONOMICS.**—(Identical with Economics 30.) The field of Economics, the theory of prices and of exchange, the theory of the distribution of income as wages, interest, rent, profits. Social classes.

First term.

Professor Clapp.

3 credits.

40. **ECONOMIC PROBLEMS.**—(Identical with Economics 40.) A survey of the leading economic problems such as tariff, trusts, monopoly, trade unions, railroad rate regulation, minimum wages, socialism, public finance. (Prerequisite 30.)

Professor Clapp.

Second term.

3 credits.

31. **BUSINESS ENGLISH.**—A careful drill in the use of correct and forceful English for various business purposes. Lectures and a large amount of practical work.

Dr. Tonsor.

First term.

2 credits.

41. **CONTINUATION OF COURSE 31.**

Dr. Tonsor.

Second term.

2 credits.

32. **CORPORATION FINANCE.**—(Identical with Economics 50.) The nature and uses of various types of security; the capitalization, management, control and reorganization of corporations. 30 and 40 must be taken before this course or simultaneously with it.

Dr. Zimmermann.

First term.

2 credits.

42. **MONEY AND BANKING.**—(Identical with Economics 60.) A sketch of the monetary history of the United States. Deposit, discount and issue

banking, with especial emphasis on the Federal Reserve Act. 30 and 40 must be taken before this course or simultaneously with it.

Second term.

Dr. Zimmermann.

3 credits.

33. AMERICAN GOVERNMENT.—Federal and State. (Identical with Political Science 50.)

Professor Brown.

First term.

3 credits.

43. BOOKKEEPING.—Designed to prepare students for Accounting (Course 11, 12). Practice in single and double entry, opening and closing the books, posting, taking off trial balances and preparing simple financial statements.

Second term.

Dr. Zimmermann.

2 credits.

Courses 50 to 63 are given in the year 1916-17 and thereafter.

50. BUSINESS ORGANIZATION.—A study of the organization, management and control of large and small manufacturing, transportation and trading concerns. Emphasis is laid on the modern efficiency movement and on control through statistics. (Prerequisite 30, 40.)

Dr. Zimmermann.

First term.

3 credits.

60. CONTINUATION OF COURSE 50.—The student is also required to make a personal study of the organization of a New York business.

Second term.

Dr. Zimmermann.

3 credits.

51. ACCOUNTING PRINCIPLES.—Practice in accounting, using books and forms current in commercial life. A set of double entry books is kept for a business, carried through the stages of sole proprietorship, partnership, incorporation and holding company, and including the typical financial complications involved. Preparation of the most diverse financial statements is required. (Prerequisite 30, 40 and either Course 43 or an examination on the subject matter thereof.)

Dr. Zimmermann.

First term.

2 credits.

61. Continuation of Course 51, which is prerequisite.

Second term.

Dr. Zimmermann.

2 credits.

Com. 52. PRINCIPLES OF ECONOMIC GEOGRAPHY.—A study of the fundamental geographic factors influencing economic conditions; especially location, topography, climate and mineral resources. The secondary factors growing out of these are considered, and their applications to the varied forms of human activity. Professor ———.

Junior, first term.

2 credits.

Com. 62. ECONOMIC GEOGRAPHY.—A further study of the application of principles is made, with especial reference to various countries.

Junior, second term.

Professor ———.

3 credits.

53. COMMERCIAL LAW.—Lectures on the law of contract and agency (Prerequisite 30, 40.) Mr. ———

First term.

3 credits.

63. INVESTMENT AND SPECULATION.—Different types of investment are studied and a basis established for the judgment of security values. The technique and use of speculation on the Stock and Produce Exchanges is explained. (Prerequisites 30, 40, 32.) Professor Clapp.

Second term.

2 hours.

Courses 70 to 83 are given in the year 1917-18 and thereafter.

70. MARKETING.—The use and efficiency of different inland marketing methods. The jobber, wholesaler, retailer. Selling direct, agencies, branches, commission firms, mail order selling. Using or discarding the middleman. (Prerequisite 30, 40.) Professor Clapp.

First term.

3 credits.

80. TRANSPORTATION.—(Identical with Economics 31.) Railroad rate structures, tariffs, classifications, terminal services and charges, the Interstate Commerce Commission. Water transportation is briefly considered. (Prerequisite 30, 40.) Professor Clapp.

Second term.

3 credits.

71. STATISTICS AND COST ACCOUNTING.—The statistical delineation of facts and relationships. The reasons for ascertaining costs are explained and the methods taught by concrete problems in manufacturing costs, which the

student must work. Special attention is given to such matters as distribution of overhead charges, analysis of wage systems and the place of cost department in the general scheme of organization. (Prerequisite 51, 61.)

First term.

Dr. Zimmermann.

2 credits.

81. CONTINUATION OF COURSE 71.

Dr. Zimmermann.

Second term.

2 credits.

72. SELLING AND ADVERTISING.—The formation, operation and control of the selling and advertising departments of a business. The determination of selling and advertising campaigns. The principles of traveling salesmanship. (Prerequisites 30, 40; also 70 must be taken with this course or before it.)

First term.

2 credits.

82. FOREIGN TRADE.—Marketing methods in the foreign field. Direct selling versus agencies and commission houses. Training men for the foreign trade. Tariffs; ocean rates; foreign exchange. (Prerequisites, 30, 40; also 70 must be taken with this course or before it.)

Professor Clapp.

Second term.

2 credits.

73. THE ORAL ENGLISH OF BUSINESS.—Practice in delivering sales presentations, in making reports and applications to executive officers and administrative boards. (Prerequisite, two years of Commerce or Economics courses.)

Dr. Tonsor.

First term.

1 credit.

83. CONTINUATION OF COURSE 73.

Dr. Tonsor.

Second term.

1 credit.

74. SEMINAR IN COMMERCE AND ECONOMICS.—In this course will be developed the theses of Seniors taking majors in Commerce or Economics.

One hour per week.

Professor Clapp.

No credit.

Dr. Zimmermann.

ECONOMICS

Major: Economics 30, 40 and 12 other approved credits from Economics or Commerce courses.

Minor: Economics 30, 40 and 6 other approved credits from Economics or Commerce courses.

30. PRINCIPLES OF ECONOMICS.

Professor Clapp.

First term.

3 credits.

40. ECONOMIC PROBLEMS.—(Prerequisite: Economics 30.)

Second term.

Professor Clapp.

3 credits.

50. CORPORATION FINANCE.—(Prerequisites: This course must follow Economics 30, 40, or be taken along with Economics 30, 40.)

First term.

Dr. Zimmermann.

2 credits.

60. MONEY AND BANKING.—(Prerequisite: Economics 50.)

Second term.

Dr. Zimmermann.

3 credits.

51. MARKETING.—(Prerequisites: Economics 30, 40.)

First term.

Professor Clapp.

3 credits.

61. TRANSPORTATION.—(Prerequisite: Economics 51.)

Second term.

Professor Clapp.

3 credits.

Courses 51 and 61 will not be given in 1915-16.

70-80. ECONOMIC ASPECTS OF THE WAR.—(Prerequisites: This course must follow Economics 30, 40, or be taken along with Economics 30, 40.)

First and second terms.

Professor Clapp.

3 credits.

74-84. SEMINAR: THE INDUSTRIAL BRONX.—Personal studies of the industrial conditions and possibilities of the Bronx. Excursions, investigations and reports by students, and discussions in the seminar. With co-operation of members of the Bronx Board of Trade. Open only to approved Juniors and Seniors. 2 hours (of seminar work).

First and second terms.

Professor Clapp.

3 credits.

Dr. Zimmermann.

In addition, all courses in the Commerce group are open to properly qualified students.

Seniors taking majors in Economics will be required to attend the Senior Seminar, held jointly for them and Commerce men.

ENGLISH

English 10 and 20, are required of all students, and are prerequisite to subsequent work in English. They will not be credited toward majors or minors. Students electing a major or a minor in English will plan their work in consultation with the head of the department. A major will consist of English 31 and 41, or 30 and 40 together with twelve additional credits; a minor, of English 31 and 41, or 30 and 40, together with six additional credits. In general, students making free elections from courses subsequent to the Freshman year should begin with the election of English 31 and 41, or of 30 and 40. No major or minor is as yet offered in Public Speaking; but the election of work in Public Speaking is strongly urged upon all students.

COMPOSITION AND LITERATURE

10-20. RHETORIC AND COMPOSITION.—Study of the principles of composition, themes; individual criticism with conferences; practice in the second term mainly in exposition and narration, and in letter writing. Conferences. Readings in modern literature. Assistant Professor Nason.

First and second terms.

Mr. Briggs.

3 credits each term.

Mr. Foster.

Mr. Andrews.

30-40. COMPOSITION AND LITERATURE.—Studies in prose writers of the nineteenth century, including Lamb, DeQuincey, Macaulay, Carlyle, Ruskin, Arnold, Pater, Stevenson, and contemporary writers. Practice in literary composition. Professor Bouton.

First and second terms.

3 credits each term.

31-41. HISTORY OF ENGLISH LITERATURE.—A view of the progress of English literature from the Old English period to the close of the eighteenth century, with a presentation of its chief facts in their relation to social and literary tendency. Professor Bouton.

First and second terms.

3 credits each term.

50-60. AMERICAN LITERATURE.—The development of American Literature and its relations to British and Continental Literature. The writers

of the Colonial and Revolutionary Periods, and Irving, Bryant, Cooper, Poe, Emerson, Whittier, Longfellow, Lowell, Holmes, Hawthorne, Whitman and Lanier. Assistant Professor Nason.

First and second terms.

3 credits each term.

51. ENGLISH DRAMA.—Origin and history of the drama in England until 1590. The miracle-play, the morality, the interlude, the chronicle-play, the work of the early Elizabethans. Assistant Professor Allen.

First term.

3 credits.

61. SHAKESPEARE.—A detailed study of some of the plays of Shakespeare with an incidental survey of English drama until the closing of the theatres in 1642. Assistant Professor Allen.

Second term.

3 credits.

70-80. LITERARY HISTORY OF THE EIGHTEENTH CENTURY.—Preliminary survey of the literature of the Restoration: Bunyan, Dryden, and the Restoration drama. The development of neo-classical literature; the beginning of its conflict with sentimentalism in the drama and the essay. Work of Swift, Pope, and Johnson.

The origin and development of the reaction against neo-classicism. Work of Gay, Ramsay, Thomson, Gray, Macpherson, Percy, Chatterton, Cowper, Crabbe. Assistant Professor Allen.

3 credits each term.

71-81. THE CONTEMPORARY DRAMA.—Ibsen, his life and work; the influence of Ibsen upon the technique and the intellectual content of the drama. Naturalism and neo-romanticism in the drama: work of Hauptmann, Sudermann, Tolstoi, Maeterlinck, Rostrand, and Shaw.

First and second terms.

Assistant Professor Allen.

3 credits each term.

FRENCH

Major: French 30, 40, 50, 60 70, 80.

Minor: French 30, 40, 50, 60.

10-20. ELEMENTARY FRENCH.—Pronunciation, dictation, syntax, exercises, (Aldrich and Foster's "Foundations of French"); reading in elementary French reader; translation of story or play.

First and second terms.

Mr. Schwarz.

3 credits.

Mr. Vaeth.

11-21. GRAMMAR AND TRANSLATION.—(Prerequisites: French 10-20.) Advanced syntax, composition (Fraser and Squair's "French Grammar," Part II); selected readings from modern authors. Mr. Schwarz.

First and second terms. Mr. Vaeth.
3 credits.

(NOTE: Courses 11-21 are designed for students presenting Elementary French, based on two years of high school preparation, at entrance.)

12-22. REVIEW OF GRAMMAR, AND TRANSLATION.—(Prerequisites: see Note below.) Study of advanced syntax and idioms (Chardenal's "Advanced French Exercises"); selected readings in prose, poetry and drama.

First and second terms. Mr. Heaton.
3 credits. Mr. Schwarz.
Mr. Vaeth.

(NOTE: Courses 12-22 are designed for students presenting Intermediate French, based on three years of high school preparation, at entrance.)

30. ADVANCED READING AND COMPOSITION.—(Prerequisites: French 10-20, 11-21 or 12-22.) Reading from modern standard French authors; advanced French composition; oral practice. Professor Babcock.

First term.
3 credits.

40. ADVANCED READING AND COMPOSITION.—(Prerequisites: French 10-20, 11-21 or 12-22, 30.) Reading from the great French authors of the seventeenth century; advanced French composition; oral practice.

Second term. Professor Babcock.
3 credits.

50-60. INTRODUCTION TO FRENCH LITERATURE.—(Prerequisites: French 10-20, 11-21 or 12-22, 30-40.) Study and discussion of the more important periods of French Literature. This course will be conducted, as far as possible, in French. Professor Babcock.

First and second terms.
3 credits.

70. FRENCH LITERATURE OF THE SEVENTEENTH CENTURY.—(Prerequisites: French 10-20, 11-21 or 12-22, 30-40, 50-60.) Survey of the French Classical Period. Conducted in French. Professor Babcock.

First term.
3 credits.

80. FRENCH LITERATURE OF THE NINETEENTH CENTURY.—(Prerequisites: French 10-20, 11-21 or 12-22, 30-40, 50-60.) After a review of the leading

authors of the eighteenth century, the chief literary movements of the nineteenth century will be studied. This course will be conducted in French.

Second term.

Professor Babcock.

3 credits.

GEOLOGY

Major:

(1) *Geology 30-40, 51-61 or 52-61, 71-81.*

(2) *Geology 30-40, 70-80, 71-81.*

Minor:

(1) *Geology 30-40, 51-61 or 52-61.*

(2) *Geology 30-40, 70-80.*

30-40. GENERAL GEOLOGY.—Lectures, field and laboratory work. The lectures cover the origin of the earth; its igneous and gradational activities, and their resulting rocks and structures; internal dynamic activities; the geological effects of life; and a brief outline of geologic history. Field work, September–November; laboratory, November–March; field work, April–May. Lectures two hours; field or laboratory two hours. Text-book: *Geology*, Vol. I, by Chamberlin and Salisbury.

First and second terms.

Assistant Professor Finlay.

3 credits.

51. ADVANCED INORGANIC GEOLOGY.—(Prerequisite: *Geology 30-40*.) Detailed discussion of special topics. The student will become acquainted with the use of original literature and the making of bibliographies on selected problems. The lectures will discuss glaciation and its relation to the development of climates, and to theories of earth genesis. Alternates with *Geology 52*; to be given in 1916–17. Lectures two hours, conference and quiz one hour.

Professor Woodman.

First term.

3 credits.

61. HISTORICAL GEOLOGY.—(Prerequisite: *Geology 51 or 52*.) The physical history of the different eras will be studied in some detail, and the development of plants and animals in outline. North America will receive especial attention. Lectures two hours; conference and quiz one hour.

Second term.

Professor Woodman.

3 credits.

52. ADVANCED INORGANIC GEOLOGY.—(Prerequisite: *Geology 30-40*.) Detailed discussion of special topics. The lectures will discuss igneous and

other internal activities, their effects and their bearing upon theories of earth genesis. Alternates with Geology 51; to be given in 1915-16. Lectures two hours; conference and quiz one hour. Professor Woodman.

First term.

3 credits.

53. PRINCIPLES OF ECONOMIC GEOGRAPHY.—A study of the fundamental factors influencing economic conditions; especially location, topography, climate and mineral resources. The secondary factors growing out of these are considered, and their applications to the varied forms of human activity. Lectures, two hours. [Not given in 1915-16.]

First term.

Professor ———.

2 credits.

63. ECONOMIC GEOGRAPHY.—In this course a further study of the application of principles is made, with especial reference to the various countries. Lectures, two hours; laboratory, two hours. [Not given in 1915-16.]

Second term.

Professor ———.

3 credits.

70-80. MINERALOGY.—(Prerequisite: Geology 30-40.) Lectures and laboratory work. Crystallography and physical mineralogy are covered early in the course, and determinative mineralogy occupies the remainder of the year. The laboratory work is conducted by means of transparent and wooden models, natural crystals, and mineral and rock specimens; and, in the determinative part of the course, consists of specific determinations, by blowpipe and physical methods. Lectures two hours, laboratory two hours. Text-book: Mineralogy by Rogers.

First and second terms.

Assistant Professor Finlay.

3 credits.

71-81. SEMINAR.—(Prerequisite: Geology 51-61, 52-61, or 70-80.) In this course the work consists of individual studies by each member, the progress and results of which are reported at the stated meetings of the course. The problems may require field, laboratory or library work, according to their nature.

First and second terms.

Professor Woodman.

3 credits.

Assistant Professor Finlay.

GERMAN

Major: German 30, 40, 50, 60, or 52 and 62, 51, 61, 71, 81, or 73 and 83.

Minor: German 30, 40, 50, 60, or 52 and 62.

10-20. ELEMENTARY COURSE.—The pronunciation, accidence, and the simpler rules of syntax, with the reading of easy prose and the translation of short sentences into German; the memorizing of the more important idioms, and practice in writing easy sentences in German. Storm's *Immensee*, Hillern's *Höher als die Kirche*, Gerstäcker's *Germelshausen*, Carmen Sylva's *Aus meinem Königreich*, Wilbrandt's *Jugendliebe*, Benedix's *Die Hochzeitsreise* and *Der Prozess*, and Fulda's *Unter vier Augen*. The basis of the study of grammar is Prokosch's German Grammar. Mr. Whyte.

First and second terms.

3 credits.

11. NARRATIVE PROSE.—(Prerequisite: Two years of German or equivalent.) The reading of selected narrative prose, the study of word formation and syntax, the memorizing of idioms, and translation of easy English prose into German. Wildenbruch's *Das edle Blut*, Saar's *Die Steinklopfer*, Eichendorff's *Aus dem Leben eines Taugenichts*, Keller's *Kleider machen Leute*. Pope's German Prose Composition. Lectures upon German customs and manners. Mr. Whyte.

First term.

Mr. Scholz.

3 credits.

21. THE GERMAN NOVEL.—(Prerequisite: Course 11 or equivalent.) The reading of some representative German novels, discussion of some of the easier problems of literary structure, the study of the more difficult idioms and points of syntax, and the writing of simple themes in German. Hauff's *Lichtenstein*, Freytag's *Soll und Haben*, Ludwig's *Zwischen Himmel und Erde*, and Sudermann's *Frau Sorge*. Lectures on the history of German literature. Mr. Whyte.

Second term.

Mr. Scholz.

3 credits.

(Courses 11 and 21 are designed for students presenting Elementary German at entrance.)

12. HISTORICAL PROSE.—(Prerequisite: Three years of German or equivalent.) The reading of graded historical prose, continued study of word-formation and syntax, sight reading, and the translation of English prose into German. Schiller's *History of the Thirty Years' War*, Schönfeld's

German Historical Prose, and von Sybel's *Die Erhebung Europas gegen Napoleon I.* Pope's German Prose Composition. Lectures on German literature and history.

Mr. Whyte.

First term.

3 credits.

22. THE GERMAN CLASSICAL DRAMA.—(Prerequisite: Course 12 or equivalent.) The reading of some of the classical dramas of Lessing, Goethe, and Schiller, the study of their dramatic structure according to the principles laid down in Freytag's *Die Technik des Dramas*, and the writing of themes. Lessing's *Emilia Galotti* and *Nathan der Weise*, Goethe's *Iphigenie* and *Tasso*, Schiller's *Die Jungfrau von Orleans* and *Die Braut von Messina*. Lectures on the history of German literature.

Mr. Whyte.

Second term.

3 credits.

(Courses 12 and 22 are designed for students presenting Intermediate German at entrance.)

30. MODERN GERMAN EPICS.—(Prerequisite: Course 21 or equivalent.) The reading of Goethe's *Hermann und Dorothea*, of selections from Voss's *Luise* and from Wieland's *Oberon*, and of Scheffel's *Der Trompeter von Säckingen*. Lectures on the history of German literature.

First term.

Professor McLouth.

3 credits.

40. GERMAN DRAMA OF THE NINETEENTH CENTURY.—(Prerequisite: Course 30.) The reading of Grillparzer's *Sappho* and *Der Traum ein Leben*, Hebbel's *Judith* and *Die Nibelungen*, and Richard Wagner's *Tannhäuser* and *Die Meistersinger*, some consideration of Hebbel's theory of the drama, and the writing of themes. Lectures on the history of German literature.

Second term.

Professor McLouth.

3 credits.

50. GERMAN LYRIC POETRY.—(Prerequisite: Course 40 or equivalent.) The reading of selections from the works of the most famous lyric poets of Germany from the period of the Reformation to the present time, including the *Volkslied*, some consideration of the music composed for the most celebrated of these poems, the comparison of some of the best English translations, and the writing of themes. Goebel's Goethe's Poems, Nollen's Schiller's Poems, White's Heine's Poems, Hewett's Poems of Uhland, and Klenze's *Deutsche Gedichte*. Lectures on the history of German literature.

First term.

Professor McLouth.

3 credits.

60. THE "STORM AND STRESS" PERIOD OF GERMAN LITERATURE.—(Prerequisite: Course 40 or equivalent.) The study of Goethe's *Götz von Berlichingen* and *Werther*, Klinger's *Sturm und Drang* and Schiller's *Die Räuber*, references to the writings of Rousseau and Herder, readings in Francke's History of German Literature, and the writing of themes. Lectures on the history of German literature. Professor McLouth.

Second term.

3 credits.

52. ADVANCED COURSE IN THE GERMAN SHORT STORY AND RELATED LITERARY FORMS.—(Prerequisite: Course 40 or equivalent.) Classical and early Romantic Period; Goethe, Schiller, Jean Paul, Kleist, Tieck, Arnim, Brentano. Associate Professor Wilkens.

First term.

3 credits.

62. ADVANCED COURSE IN THE GERMAN SHORT STORY AND RELATED LITERARY FORMS (continued).—Late Romantic Period, to modern times: La Motte Fouqué, Eichendorff, Hoffmann, Hauff, Immermann, Mörike, Storm, Heyse, Keller, Meyer. Associate Professor Wilkens.

Second term.

3 credits.

51. GERMAN CONVERSATION.—(Prerequisite: Course 22 or equivalent.) A systematic drill in the use of spoken German, based upon narrative texts to be selected by the instructor. Mr. Whyte.

First term.

Mr. Scholz.

2 credits.

61. GERMAN CONVERSATION (continued).—(Prerequisite: Course 51, or equivalent.) The oral treatment by the pupil of graded themes, together with discussions of assigned topics. Mr. Whyte.

Second term.

Mr. Scholz.

Two credits.

[71. GOETHE'S *Faust*, FIRST PART.—(Prerequisites: Courses 50 and 60 or 52 and 62, or equivalent.) The study and interpretation of the First Part of Goethe's *Faust*, lectures on the *Faust* legends, the genesis and the most important criticisms of the poem, some consideration of the *Faust*-books, the *Göckhausen Faust* and *Faust ein Fragment*, and the writing of themes. Thomas's, *Goethe's Faust*, Part I. Schröder's *Faust von Goethe*. Bayard Taylor's *Faust: a Tragedy by Goethe*. Professor McLouth.

First term.]

2 credits.

[81. GOETHE'S *Faust*, SECOND PART.—(Prerequisite: Course 71, or equivalent.) The study and the interpretation of the Second Part of Goethe's *Faust*, lectures on the genesis, the most important criticisms and the symbolism of the poem, and the writing of themes. Thomas's Goethe's *Faust*, Part II. Schröder's *Faust von Goethe*. Bayard Taylor's *Faust: a Tragedy* by Goethe. Professor McLouth.

Second term.]

2 credits.

[72. THE HISTORY OF GERMAN LITERATURE FROM THE GOTHIC PERIOD TO THE TIME OF KLOPSTOCK.—(Prerequisites: Courses 50 and 60, or 52 and 62, or equivalent.) Readings from Thomas's German anthology I; recitations on Priest's History of German Literature; collateral reading; lectures; themes.

First term.]

Professor McLouth.

2 credits.

[82. THE HISTORY OF GERMAN LITERATURE FROM THE TIME OF KLOPSTOCK TO THE PRESENT.—(Prerequisite: Course 72, or equivalent.) Readings from Thomas's German Anthology II; recitations on Priest's History of German Literature; collateral reading; lectures; themes.

Second term.]

Professor McLouth.

2 credits.

(Courses 71, 81, 72, 82 will not be given in 1915-16.)

73. THE MODERN GERMAN DRAMA SINCE 1889.—(Prerequisites: Courses 50 and 60 or 52 and 62, or equivalent.) Readings in the works of Bahr, Halbe, Hauptmann, Hoffmannsthal, Schnitzler, Sudermann, Wedekind, and others.

Professor McLouth.

3 credits.

83. THE MODERN GERMAN DRAMA SINCE 1889 (continued) with recitations on Witkowski's German Drama of the Nineteenth Century.

Professor McLouth.

3 credits.

GREEK

Major: 30, 40, 50, 60, 70, 80.

Minor: 11, 21, 30, 40.

10-20. ELEMENTARY GREEK.—(Prerequisite: Fulfillment of entrance requirement in Latin.) For such Freshmen and Sophomores as did not offer Greek for admission. Intended to meet in part the requirements for Course

11 and to enable the student by outside study to meet those requirements in full by the beginning of his second semester. Grammar, prose exercises, and Xenophon's *Anabasis*. Professor Waters.

First and second terms.

3 credits.

11. XENOPHON AND LYSIAS.—(Prerequisite: Fulfillment of entrance requirements in Greek.) Particular study of Attic vocabulary and grammar.

First term.

Professors Waters.

3 credits.

21. PLATO.—(Prerequisite: Greek 11.) *Apology* and *Crito*, with selections from other dialogues. Lectures on the History of early Greek Literature. Professor Waters.

Second term.

3 credits.

30. AESCHYLUS AND SOPHOCLES.—(Prerequisite: Greek 11, 21.) Study of the Attic Drama. History of Greek Literature in the Fifth Century.

First term.

Professor Waters.

3 credits.

40. EURIPIDES AND ARISTOPHANES.—(Prerequisite: Greek 30.) Selected plays; study of the social and political relations in the second half of the fifth century. Professor Waters.

Second term.

3 credits.

50. HOMER.—(Prerequisite: Greek, 30, 40.) Selected parts of the *Iliad*, with study of Homeric life. Professor Waters.

First term.

3 credits.

60. HOMER AND HERODOTUS.—(Prerequisite: Greek 50.) Selected parts of the *Odyssey*, and the History of Herodotus, with study of related material.

Second term.

Professor Waters.

3 credits.

70. DEMOSTHENES, AND MODERN GREEK.—(Prerequisite: Greek 30, 40.) Selected speeches from the orator. Study of the development of Greek prose in oratory and conversation. Professor Waters.

First term.

3 credits.

80. THUCYDIDES, AND INSCRIPTIONS.—(Prerequisite: Greek 70.) Episodes in the Peloponnesian War. Selected readings in Plutarch and Lucian. Historical Inscriptions. Professor Waters.

Second term.

3 credits.

(Courses 50, 60 and 70, 80 are given in alternate years. Courses 70, 80 will be given in 1915-16.)

51. GREEK CLASSICS IN ENGLISH.—A study in the development of Greek Literature from the time of Homer to the close of the Persian War. English translations of the authors studied are used, and the important facts presented which show the political and social as well as the literary progress of the period. Professor Waters.

First term.

2 credits.

61. GREEK CLASSICS IN ENGLISH.—A continuation of Course 51 from the time of Sophocles to Theocritus. Readings in standard translations.

Second term.

Professor Waters.

2 credits.

HISTORY

Major: History 30, 40, 50, 60, 51, 61, 70 or 71 and 80.

Minor: History 30, 40 and 50-60 or 51-61.

30. MEDIEVAL HISTORY.—Europe from the Fall of the Roman Empire to the Reformation. Assistant Professor Jones.

First term.

3 credits.

40. MODERN HISTORY.—(Prerequisite: History 30.) Europe from the Reformation to the Present Time. Assistant Professor Jones.

Second term.

3 credits.

50-60. POLITICAL AND CONSTITUTIONAL HISTORY OF ENGLAND.—(Prerequisites: History, 30, 40.) Professor Brown.

First and second terms.

3 credits.

51-61. POLITICAL AND CONSTITUTIONAL HISTORY OF THE UNITED STATES.—(Prerequisites: History 30, 40.) Professor Brown.

First and second terms.

3 credits.

(Courses 50-60 and 51-61 are given in alternate years; Courses 51-61 will be given in 1915-16.)

80. HISTORY OF THE CIVIL WAR AND OF RECONSTRUCTION.—(Prerequisites History 50-60 or 51-61.) Professor Brown.

Second term.

2 credits.

[70. HISTORY OF THE FRENCH REVOLUTION.

First term.]

Assistant Professor Jones.

Not given in 1915-16.

[71. THE NAPOLEONIC PERIOD.

Assistant Professor Jones.

First term.]

Not given in 1915-16.

72. EUROPE SINCE 1815.—(Prerequisites: History 30, 40.)

First term.

Assistant Professor Jones.

3 credits.

73. HISTORY OF THE EARLY CHRISTIAN CHURCH.—A study of the development of thought and institutions in the first two centuries of the Christian era. Mr. Limouze.

First term.

2 Credits.

99-109. STUDIES IN MEDIÆVAL HISTORY.—Open to Seniors. (Prerequisites: History 30, 40, 50, and a reading knowledge of French.)

First and second terms.

Assistant Professor Jones.

Thursday 4-6.

4 credits.

LATIN

Major: Latin 30, 40, 50, 60, 70, 80.

Minor: Latin 10, 20, 30, 40.

10. CICERO, SECOND OR FIFTH *Philippic*.—Syllabus of the more idiomatic points of Latin Syntax. Practice in writing Latin. Professor Sihler.

First term.

Mr. Barranco.

3 credits.

20. LIVY, BOOK I OR XXII; HORACE, *Odes*.—(Prerequisite: Latin 10.) Translation at sight from English into Latin. Practice in writing and speaking Latin. Professor Sihler.

Second term.

Mr. Barranco.

3 credits.

30. PLINY, *Letters*; TERENCE, one or two plays; CICERO, *de Officiis*.—(Prerequisite: Latin 20.) Practice in speaking and writing Latin.

First term.

Professor Sihler.

3 credits.

40. HORACE, *Satires*; JUVENAL OR PERSIUS, SELECTIONS; TACITUS.—(Prerequisite: Latin 30.) Lectures; practice in speaking and writing Latin.

Second term.

Professor Sihler.

3 credits.

50. CICERO, *De Finibus*; TACITUS, *Annals*, OR QUINTILIAN, BOOK X.—(Prerequisite: Latin 40.) Practice in speaking and writing Latin. Latin discourse on selected epochs of Roman history. Latin syllabus.

First term.

Professor Sihler.

3 credits.

60. HORACE, *Epistles*; OR A PLAY OF PLAUTUS.—Lecture Course. (Prerequisite: Latin 50.)

Professor Sihler.

Second term.

3 credits.

70. JUSTINIAN, OR CICERO, *de Oratore*.—(Prerequisite: Latin 40.)

First term.

Professor Sihler.

3 credits.

80. SUETONIUS OR SENECA; VELLEIUS.—(Prerequisite: Latin 70.)

Second term.

Professor Sihler.

3 credits.

(Courses 50, 60 and 70, 80 are given in alternate years; Courses 70, 80, will be given in 1915-16.)

61. BIOGRAPHY OF CÆSAR, LECTURES ON THE DECLINE AND FALL OF THE ROMAN REPUBLIC.

Professor Sihler.

Second term.

2 credits.

(A knowledge of Latin is not a prerequisite for this course.)

31. SIGHT READING AND LATIN SPEAKING.—(Prerequisite: Latin 20.)

First term.

Professor Sihler.

2 credits.

MATHEMATICS

Major: Mathematics 30, 40, 50, 60, and six hours from 51, 61, 70, 80.

Minor: Mathematics 21, 30, 40, and three hours from 50, 51, 61, 70, 80.

10. TRIGONOMETRY.

Assistant Professor Thorne.

First term.

Mr. Becker.

3 credits

Mr. Pride.

20. SOLID GEOMETRY.

Assistant Professor Thorne.

Second term.

Mr. Becker.

3 credits.

11. ADVANCED ALGEBRA.

Professor Edmondson.

First term.

Mr. Becker.

3 credits.

21. ANALYTIC GEOMETRY.—(Prerequisite: Mathematics 10 or Entrance Trigonometry.)

Professor Edmondson.

Second term.

Mr. Pride.

3 credits.

30. CALCULUS.—(Prerequisite: Mathematics 21.)

First term.

Professor Edmondson.

4 credits.

40. CALCULUS.—(Prerequisite: Mathematics 30.) Continuation of Course 5.

Professor Edmondson.

Second term.

3 credits.

50. DIFFERENTIAL EQUATIONS.—(Prerequisite: Mathematics 40.)

First term.

Assistant Professor Thorne.

3 credits.

60. THEORETICAL MECHANICS.—(Prerequisite: Mathematics 50.)

Second term.

Assistant Professor Thorne.

3 credits.

[51. THEORY OF EQUATIONS.—(Prerequisite: Mathematics 40.)

First term.]

Professor Edmondson.

3 credits.

[61. ADVANCED PLANE ANALYTIC GEOMETRY.—(Prerequisite: Mathematics 40.)]

Professor Edmondson.

Second term.

3 credits.

70. SOLID ANALYTIC GEOMETRY.—(Prerequisite: Mathematics 40.)
First term. Professor Edmondson.
3 credits.

80. ADVANCED CALCULUS.—(Prerequisite: Mathematics 40.)
Second term. Professor Edmondson.
3 credits.

(Courses 51, 61 and 70, 80 are given in alternate years; Courses 70 and 80 will be given in 1915-16.)

Freshmen presenting

for entrance:

must take:

Mathematics A, C

Mathematics 10, and 20 or 21

Mathematics A, C, D

Mathematics 10 and 21

Mathematics A, C, E

Mathematics 11, and 20 or 21

Mathematics A, C, D, E

Mathematics 11 and 21

MUSIC

50. APPRECIATION OF MUSIC.—Elements of music psychologically considered. History of music from Palestrina to the end of the classical period, with elementary analysis of the classical forms. (No technical knowledge of music is required for this course.) Mr. Wright.

First term.

2 credits.

60. CONTINUATION OF COURSE 1.—Romantic composers and modern opera. Standards of musical criticism. Mr. Wright.

Second term.

2 credits.

70. HARMONY AND EAR-TRAINING.—Scale-formation, intervals, triads and their inversions. Rudimentary musical dictation. (A rudimentary knowledge of musical notation is required for this course.) Mr. Wright.

First term.

2 credits.

80. CONTINUATION OF COURSE 70.—Seventh-chords, suspensions, etc.; ear tests. Mr. Wright.

Second term.

2 credits.

PHILOSOPHY

Major: 30, 40, 50, 60 and 70, 80 or 71, 81.

Minor: 30, 40, 50, 60.

30. **PSYCHOLOGY.**—A descriptive and explanatory study of consciousness.

First term.

Professor Shaw.

3 credits.

40. **LOGIC AND INTRODUCTION TO PHILOSOPHY.**—A study of formal logic, with introduction to Theory of Knowledge.

Second term.

Professor Shaw.

3 credits.

50. **ETHICS.**—(Prerequisites: Philosophy 30, 40.) A contrast of the various views of human life.

Professor Shaw.

First term.

3 credits.

60. **PHILOSOPHY OF RELIGION.**—(Prerequisites: Philosophy 30, 40.) A study of the essence and character of religion.

Second term.

Professor Shaw.

3 credits.

70. **HISTORY OF ANCIENT PHILOSOPHY.**—(Prerequisites: Philosophy 30, 40, 50, 60.) The development of ancient thought; readings from the classical thinkers of antiquity.

Professor Shaw.

First term.

3 credits.

80. **HISTORY OF MODERN PHILOSOPHY.**—(Prerequisites: Philosophy 30, 40, 50, 60.) The development of modern thought; readings from modern philosophy.

Professor Shaw.

Second term.

3 credits.

71. **SYSTEMATIC PHILOSOPHY.**—(Prerequisites: Philosophy 30, 40, 50, 60.) An introduction to philosophy with a study of philosophic encyclopedia.

First term.

Professor Shaw.

3 credits.

81. **METAPHYSICS.**—(Prerequisites: Philosophy 30, 40, 50, 60.) A study of the world as appearance, activity, reality; readings from contemporary metaphysics.

Professor Shaw.

Second term.

3 credits.

(Courses 70, 80 and 71, 81 will be given in alternate years; Courses 71, 81 will be given in 1915-16.)

72. AESTHETICS.—(Prerequisites: Philosophy 30, 40, 50, 60.) The philosophy of art and the doctrine of beauty, with a discussion of the problem of culture. Professor Shaw.

First term.

2 credits.

82. PHILOSOPHY OF LIFE.—(Prerequisites: Philosophy 30, 40, 50, 60.) A study of individualism, with a discussion of the problem of selfhood and society. Professor Shaw.

Second term.

2 credits.

PHYSICAL TRAINING

From November 1 to April 1

10, 20. Required of all Freshmen.
1 credit.

Mr. Cann.
Mr. Miller.
Mr. H. Worth.

30-40. Required of all Sophomores.
1 credit.

Mr. Cann.
Mr. Miller.

11. PERSONAL EFFICIENCY.—Required of Freshman, Sections A and B. Lectures by Dr. Whitney and others.

First term.

1 credit.

Examination. Upon entering college, each student is required to present himself to the Physical Director for a physical examination.

PHYSICS

Major: 30, 40, 50, 60, 70, 80.

Minor: 30, 40, 50, 60.

10-20. GENERAL PHYSICS.—An elementary course in general physics; lectures, recitations, laboratory. Mr. Hobbie.

First and second terms.

3 credits.

11-21. GENERAL PHYSICS FOR MEDICAL PREPARATORY STUDENTS.—Lectures, recitations, 3 hours, and laboratory 2 hours weekly.

First and second terms.

4 credits.

Professor Arnold.
Mr. Hunter.
Mr. Hobbie.

12. GENERAL PHYSICS FOR MEDICAL PREPARATORY STUDENTS.—Lectures and recitations. Mr. Hobbie.

February-June term.

2 credits.

22. GENERAL PHYSICS FOR MEDICAL PREPARATORY STUDENTS.—Lectures, recitations and laboratory. ——— ———

June-September term.

6 credits.

30. MECHANICS, SOUND, HEAT.—Recitation and lectures. (Prerequisites: Algebra, plane geometry, plane trigonometry, Physics 10, or a half year of high school physics.) Mr. Hunter.

First term.

3 credits.

40. MAGNETISM, ELECTRICITY, LIGHT.—Recitations and lectures. (Prerequisite: Physics 20 or corresponding half year of high school physics.)

Second term.

Mr. Hunter.

3 credits.

50. LABORATORY WORK IN MECHANICS, HEAT, AND SOUND.—(Prerequisites: Physics 30 and Analytic Geometry.) Professor Hering,

First term.

Mr. Hunter.

3 credits.

Mr. Lynch.

60. LABORATORY WORK IN SOUND, ELECTRICITY, AND LIGHT.—(Prerequisites: Physics 40 and Analytic Geometry.) Professor Hering.

Second term.

Mr. Hunter.

3 credits.

Mr. Lynch.

51. LABORATORY WORK IN MECHANICS, HEAT, AND SOUND.—(Prerequisite: Physics 30.) Professor Hering.

First term.

1 credit.

61. LABORATORY WORK IN SOUND, ELECTRICITY, AND LIGHT.—(Prerequisite: Physics 40.) Professor Hering.

Second term.

1 credit.

70. Advanced work in laboratory, with occasional lectures and a good deal of collateral reading.—(Prerequisite: Physics 30.)

First term.

Professor Hering.

3 credits.

80. Advanced work in laboratory, continuation of Physics 70.—(Prerequisite: Physics 40.)
Second term. Professor Hering.
3 credits.

71. Advanced work in laboratory, with lectures and collateral reading.—
(Prerequisites: Physics 30, 50.) Professor Hering.
First term.
1 credit.

81. Advanced work in laboratory, with lectures and collateral reading.—
(Prerequisites: Physics 40, 60.) Professor Hering.
Second term.
1 credit.

POLITICAL SCIENCE

Minor: Political Science 50, 60, 70, 80.

50. AMERICAN GOVERNMENT.—Federal and State.
First term. Professor Brown.
3 credits.

60. GOVERNMENTS OF MODERN EUROPE.—(Prerequisite: Political Science 50.)
Second term. Assistant Professor Jones.
3 credits.

70. MUNICIPAL GOVERNMENT.—(Prerequisites: Political Science 50, 60.)
First term. Professor Brown.
3 credits.

80. INTERNATIONAL LAW.
Second term. Professor Brown.
3 credits.

PUBLIC SPEAKING

(Course 20 is prerequisite for all subsequent work in public speaking)

20. ORAL INTERPRETATION.—Interpretation of selected masterpieces of oratory, with special attention to the use and control of the breath, voice production, enunciation, and gesture; together with a study of defects of voice or manner, that tend to lessen the effectiveness of conversation.

Feb.—June term. Mr. Briggs.
1 credit.

30-40. ORAL ENGLISH.—This work is designed to extend throughout the Sophomore year. The chief objectives are: organization of material of conversation and of recitation; enlargement of vocabulary; correct and effective expression; fluency; correction of speech defects. The material of the second term will include extempore speeches, orations, and informal argumentation. Attention will be given throughout to the stimulation of clear and original thinking.

Mr. Briggs.

1 credit each term.

50. ARGUMENTATION AND DEBATE.—(Prerequisites: Pub. Sp. 20, 30, 40 also Eng. 10, 20.) Research and composition of briefs and forensics. Argumentative speeches and pleas. Class room debates on topics of current interest.

Dr. Tonsor.

First term.

2 credits.

60. PLATFORM ARGUMENTATION.—(Prerequisite: P. S. 50.) The members of the class will be expected to conduct a forum, open to the students generally, and the public, the topic to be the subject of the forensic written the first term.

Dr. Tonsor.

Second term.

2 credits.

Speech Clinic. To this will be referred, by the various professors, students having speech defects, imperfect enunciation, etc. Each case will be treated individually, and remedy applied where possible.

Dr. Tonsor.

Mr. Briggs.

SOCIOLOGY

50. PRINCIPLES OF SOCIOLOGY.

Professor Clapp.

First term.

3 credits.

60. SOCIAL REFORM.—(Prerequisite: Sociology 50.)

Second term.

Professor Clapp.

3 credits.

SPANISH

Minor: Spanish 50-60, 70, 80.

10-20. ELEMENTARY SPANISH.—Drill in pronunciation and grammatical forms; reading of elementary text.

Mr. Vaeth.

First and second terms.

3 credits.

50-60. **ELEMENTARY SPANISH.**—Exercises in pronunciation; grammar; prose composition; translation of easy Spanish prose; reading of selected stories, plays, etc. Mr. Heaton.

First and second terms.

3 credits.

30. **ADVANCED SPANISH.**—(Prerequisite: Spanish 10-20.) Reading of modern authors; prose composition. Mr. Heaton.

First term.

3 credits.

40. **ADVANCED SPANISH, CONTINUED.**—(Prerequisites: Spanish 10-20, 30. Prose composition; oral practice; scientific and journalistic Spanish.

Second term.

Mr. Heaton.

3 credits.

70. **SPANISH LITERATURE OF THE NINETEENTH CENTURY.**—(Prerequisites: Spanish, 50-60.) Reading from the leading Spanish novelists, poets and dramatists of the nineteenth century; prose composition. Mr. Heaton.

First term.

3 credits.

80. **SPANISH LITERATURE OF THE CLASSICAL PERIOD.**—(Prerequisites: Spanish 50, 60, 70.) Reading from Cervantes, Lope de Vega, Calderón, Tirso de Molina, etc.; lectures on Spanish Literature.

Second term.

Mr. Heaton.

3 credits.

NEW YORK UNIVERSITY
SUMMARY OF UNIVERSITY STATISTICS 1914-1915 AS OF
MARCH 1, 1915

DIVISIONS	Professors and Asst. Professors	Lecturers	Instructors	Assistants	Other Officers	Total Officers	Total Students	Degrees Con- ferred, 1914
College of Arts.	25	1	21	8		55	378	42
School of Applied Science.	22	8	18	6		54	311	48
School of Law.	10	4	5			19	685	154
School of Medicine.	53	19	45	12	51	180	540	83
School of Commerce.	13	40	22	3		78	2645	201
Veterinary College.	10	10	2			22	15	6
Washington Square College.	40	5	9			54	457	43
School of Pedagogy.	7	23	3			33	515	13
Graduate School.	39	7	8			54	405	57
Summer School.		91				91	938	
Extramural Division.		65				65	*	
Woman's Law Class.	1	2				3	65	
Administrative Divisions:								
General.					36	36		
Library.					10	10		
Grand Total.	220	275	133	29	97	754	6948	647
Duplications.	71	84	26	2		183	376	
Net Total.	149	191	107	27	97	571	6572	647

*There are more than two thousand students taking courses in the Extramural Division who are not included in the list of regular students of the University.

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NO. 3

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ARTS AND PURE SCIENCE

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1921-1922

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TO REACH UNIVERSITY HEIGHTS

The campus of New York University at University Heights may be reached in four ways:

- (1) By transfer from the Jerome avenue subway express at 167th street to the Sixth avenue elevated to New York University station.
- (2) By transfer from the Broadway subway at 181st street to the University avenue trolley which passes the campus.
- (3) By New York Central to University Heights station.
- (4) By Seventh avenue subway to 207th street, thence eastward ten minutes' walk across the Harlem river and through University park.

GENERAL INFORMATION

For circulars of the College of Arts and Pure Science address the Recorder of the Faculty, New York University, University Heights, New York. The office hours of the recorder are 9 a.m. to 5 p.m., Saturdays, 9 a.m., to 12 m.

Inquiries respecting admission to the college should be addressed to the Dean of the College of Arts and Pure Science, University Heights, New York. The dean may be seen at his office in the Hall of Languages on Mondays, Tuesdays, Thursdays, and Fridays, from 9.30 a.m. to 11.30 a.m., after September 12, and until June 7.

In order to receive prompt attention, and to facilitate the work of registration, entrance certificates should be forwarded to the recorder not later than July 15.

The secretary of the faculty may be seen in his office in the morning daily except Saturday, during the college year.

Inquiries respecting rooms should be addressed to Dr. Edward Gasparitsch, Assistant Bursar, University Heights, New York.

NEW YORK UNIVERSITY

COLLEGE OF
ARTS AND PURE SCIENCE

BULLETIN SERIES

VOL. XXI, No. 3, DATED MARCH 5, 1921

CALENDAR

1921

JULY							AUGUST							SEPTEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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3	4	5	6	7	8	9	7	8	9	10	11	12	13	4	5	6	7	8	9	10
10	11	12	13	14	15	16	14	15	16	17	18	19	20	11	12	13	14	15	16	17
17	18	19	20	21	22	23	21	22	23	24	25	26	27	18	19	20	21	22	23	24
24	25	26	27	28	29	30	28	29	30	31	---	---	---	25	26	27	28	29	30	---
31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
OCTOBER							NOVEMBER							DECEMBER						
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2	3	4	5	6	7	8	6	7	8	9	10	11	12	4	5	6	7	8	9	10
9	10	11	12	13	14	15	13	14	15	16	17	18	19	11	12	13	14	15	16	17
16	17	18	19	20	21	22	20	21	22	23	24	25	26	18	19	20	21	22	23	24
23	24	25	26	27	28	29	27	28	29	30	---	---	---	25	26	27	28	29	30	31
30	31	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

1922

JANUARY							FEBRUARY							MARCH						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
I	2	3	4	5	6	7	---	---	---	I	2	3	4	---	---	---	I	2	3	4
8	9	10	11	12	13	14	5	6	7	8	9	10	11	5	6	7	8	9	10	11
15	16	17	18	19	20	21	12	13	14	15	16	17	18	12	13	14	15	16	17	18
22	23	24	25	26	27	28	19	20	21	22	23	24	25	19	20	21	22	23	24	25
29	30	31	---	---	---	---	26	27	28	---	---	---	---	26	27	28	29	30	31	---
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APRIL							MAY							JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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2	3	4	5	6	7	8	7	8	9	10	11	12	13	4	5	6	7	8	9	10
9	10	11	12	13	14	15	14	15	16	17	18	19	20	11	12	13	14	15	16	17
16	17	18	19	20	21	22	21	22	23	24	25	26	27	18	19	20	21	22	23	24
23	24	25	26	27	28	29	28	29	30	31	---	---	---	25	26	27	28	29	30	---
30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

SUMMER SCHOOL—JULY 5 TO AUGUST 12, 1921

THE HOLIDAYS IN BLACK FACE ARE THOSE OBSERVED BY EVERY SCHOOL OF THE UNIVERSITY. THE PRINTED CALENDAR ON THE PAGE OPPOSITE IS MORE DETAILED.

CALENDAR

All dates are inclusive

1921

First Personnel Examination	Friday and Saturday	July 1-2
Entrance Examinations	Monday to Friday	Sept 12-16
Second Personnel Examination	Friday	Sept. 16
College Opens	Monday	Sept. 19
Registration for all students	Monday and Tuesday	Sept. 19-20
Chancellor's Address to matriculants	Wednesday	Sept. 21
Founders' Day	Tuesday	Oct. 18
Election day: Holiday	Tuesday	Nov. 8
Thanksgiving Recess	Thursday to Saturday	Nov. 24-26
Christmas Recess	Friday to Monday	Dec. 23-Jan. 2

1922

Term Examinations	Wednesday to Friday	Jan. 18-27
Entrance Examinations February-September Division	Monday to Friday	Jan. 23-27
Second Term begins. First Term February-September Division	Monday	Jan. 30
Washington's Birthday: Holiday	Wednesday	Feb. 22
Easter Recess	Thursday to Saturday	April 13-15
R.O.T.C. Field Day	Wednesday	May 17
Final Examinations	Wednesday to Friday	May 24-June 2
Memorial Day: Holiday	Tuesday	May 30
Commencement Alumni Day	Saturday	June 3
Baccalaureate Service	Sunday	June 4
Conferring of Degrees	Wednesday	June 7
Recess, February-September Division	Monday to Saturday	June 5-10
Second Term begins, February-September Division	Monday	June 12
Independence Day: Holiday	Tuesday	July 4
Second Term ends, February-September Division	Saturday	Sept. 23
College Opens	Monday	Sept. 25

CONTENTS

	PAGE
ADMISSION REQUIREMENTS	14
Sections A and B	15
Medical Preparatory Course	18
ATHLETIC SPORTS.	34
CALENDAR	3
CHEMISTRY COURSE	13
COLLEGE COURSE	42
COMMERCE COURSE	11
COURSE OF STUDY—GENERAL RULES	37
Prescribed Subjects	37
Majors and Minors	38
Free Electives	38
COURSES—OUTLINE	
Four Year College Course	42
Two Year Medical Preparatory Course	43
Six Year College and Medical Course	46
Four Year College Commerce Course	46
Four Year College Chemistry Course	47
COURSES—DESCRIPTION	
Astronomy	50
Biology	50
Chemistry	52
Commerce	55
Economics	56
English	57
French	59
Geology	60
German	62
Greek	64
History	66
Italian	67
Latin	67
Mathematics	68
Military Science and Tactics	69
Music	70
Philosophy	71
Physical Training	72
Physics	73
Political Science	74

Public Speaking	75
Sociology	77
Spanish	77
DISCIPLINE	30
ENTRANCE EXAMINATIONS—SEPTEMBER AND JANUARY . . .	16
ETHICAL AND RELIGIOUS TRAINING	32
FACULTY	6
FACULTY COMMITTEES	9
FEBRUARY-SEPTEMBER COURSES	13
FEES	19
FELLOWSHIPS	29
GRADUATION REQUIREMENTS	31
GROUND AND BUILDINGS	34
HONORS SYSTEM	40
LIBRARY AND LABORATORY FACILITIES	35
LOAN FUNDS	20
MEDICAL PREPARATORY COURSE	12
Two Year Course	43
Six Year College and Medical Course	46
MILITARY SCIENCE AND TACTICS	32
PHYSICAL TRAINING	34
PRIZES	25
REPORTS—TERM AND EXAMINATION	31
RESERVE OFFICERS' TRAINING CORPS	32
RESIDENCE	19
SCHOLARSHIPS	21
SENIOR ELECTIVES	39
SOCIETIES	33
SPECIAL ADVISERS	39
STUDENT PUBLICATIONS	34
YOUNG MEN'S CHRISTIAN ASSOCIATION	33

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AUGUST STEITZ, PH.D.
Acting Assistant Professor of German

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Oswald Black, Sc.B.	<i>Physics</i>
Alpheus Wesley Blizzard, A.M.	<i>Biology</i>
Richard Carman Borden, A.B.	<i>Public Speaking</i>
Albert Stephens Borgman, Ph.D.	<i>English</i>
Henry Brennecke, A.M.	<i>German</i>
George Rowland Collins, A.M.	<i>Public Speaking</i>
James J. Fowler	<i>Military Science</i>
Jason Buford Edgar	<i>Management</i>
Warren Edgar Gibbs, A.B.	<i>English</i>
Charles Liguori Graham, Sc.M.	<i>Mathematics</i>
Hector McBean Hart, A.B.	<i>Economics</i>
Reginald Willis Hunter, Sc.B.	<i>French</i>
Louis Jahelka, Sc.B.	<i>Physics</i>

Ernest R. Lilley, Sc.M.	<i>Geology</i>
William Aloysius Lynch, A.B.	<i>Physics</i>
Henry Mayer, A.B.	<i>Mathematics</i>
Frederick William Miller, Jr., Sc.M.	<i>Chemistry</i>
Clinton Mindil, A.M.	<i>English</i>
Joseph Hendershot Park, Ph.D.	<i>History</i>
Edward Parkhurst Phelps, A.M.	<i>Chemistry</i>
Herbert Hammond Pride, A.B.	<i>Mathematics</i>
Russell Vreeland Tuers, Sc.M.	<i>Biology</i>
Walter Broad Veazie, Ph.D.	<i>Philosophy</i>
Edgar Richard Wagner, Sc.M.	<i>Chemistry</i>
Francis Prince Wall	<i>Physical Training</i>
Frank Merrill Wheat, A.M., Sc.D.	<i>Biology</i>
Stanley G. Warner, Ph.B.	<i>Biology</i>
Earl Franklin Wood, A.M.	<i>English</i>
William Lyndon Wright, A.M.	<i>Music and English</i>

Belle Corwin, M.D.	<i>Librarian</i>
Jeanne M. Elliott	<i>Recorder</i>
Edward Gasparitsch, Ph.D.	<i>Assistant Bursar</i>
Emma F. Schirmer	<i>Secretary to the Dean</i>

Standing Committees of the Faculty for the Year 1920-1921

Admission: Chairman, Professor Edmondson; Professors Bristol, Shaw, Hill, Assistant Professor Vaeth.

Scholarship: Chairman, Dr. Borgman; Professors Bristol, McLouth, Associate Professor Jones, Assistant Professors Thorne, Briggs, Loomis; the recorder, ex officio.

Curriculum: Chairman, Associate Professor Jones; Professors Edmondson, Hill, Babcock, Hubbard.

Scholarships: Dean Bouton, Professor Edmondson.

The dean is an ex officio member of each committee.

**Joint Standing Committees of the College of Arts and Pure Science
and the College of Engineering**

Discipline: Chairman, Dean Bouton; Deans Snow, Brown, Professors Haring, Hill, Hathaway; Associate Professor Bryans, Assistant Professor Thorne.

Organizations: Chairman, Assistant Professor Stunkard; Professor Hill, Director Cann, Professor Hathaway, Mr. Lynch; Deans Bouton, Snow, ex officio.

Library: Chairman, Professor Edmondson; Deans Bouton, Brown, Snow, Professor Bristol, Associate Professor Jones; Miss Corwin, ex officio.

Music in Chapel: Professor Waters, Mr. Wright.

Examination Schedule: Chairman, Dr. Park; Assistant Professors McDonald, Vaeth, Messrs. Wall, Hart.

Personnel Board: Chairman, Assistant Professor Thorne; Professors Haring, Hathaway, Associate Professor Bryans, Lieutenant Bringham.

Entrance Examination Schedule: Chairman, Mr. Pride; Mr. Wood.

The chancellor and the deans are ex officio members of each committee.

**Members of the Faculty of the College of Arts and Pure Science
in the University Senate**

Dean Archibald Lewis Bouton, A.M.

Professor Charles Lawrence Bristol, Ph.D.

INTRODUCTORY STATEMENT

The College of Arts and Pure Science shares with the College of Engineering a forty acre campus of great natural beauty at University Heights in New York City. It is far enough from the center of the city to have many of the characteristics of a country college but its proximity is such that the great enterprises, large libraries, and organized life of the great city may widen the student horizon.

The college offers a general cultural course of four years in the fields of ancient and modern languages, history, philosophy, mathematics, and science. This course leads to the degree of bachelor of arts or bachelor of science. Beginning with an organization of studies for freshmen that is largely prescribed, the later years lead gradually toward specialization in major and minor fields of study. Throughout the course and beginning especially under a director of freshman instruction, the work of the student is under the careful supervision of professorial advisers. It is the policy of the college to provide teachers of professorial rank in elementary courses.

In addition to the general cultural course, the College of Arts and Pure Science has a close affiliation with the professional schools of the University, and also offers a course for specialized training in chemistry.

College Commerce Course

The college commerce course combines purely academic training with courses in the theory of economics and the elements of business practice. In this group of courses no attempt is made to duplicate the work of the School of Commerce at Washington Square; the cultural emphasis is maintained but the purposes and methods of practical business are approached through work in

accounting, banking, corporate organization, and management. The graduate from the college commerce course has received four years of training possessing general cultural value, but finds himself better prepared than the average college man to enter directly upon a business career.

Medical Preparatory Course

The medical schools of America are now substantially united in requiring at least two years of college training as a prerequisite for beginning medical studies. The College of Arts and Pure Science offers a medical preparatory course arranged to meet this requirement. The course provides the necessary instruction in physics, chemistry, and biology, and affords opportunities in cultural subjects for work which broadens the preparation of the candidate for medical studies. It is designed especially to prepare men for admission to the University and Bellevue Hospital Medical College, but also affords adequate preparation for other medical schools.

Students entering this course may, by spending a minimum of two years in the College of Arts and Pure Science, qualify for admission to the University and Bellevue Hospital Medical College, in which, after two additional years of study, they will receive from the Medical College the degree of bachelor of science, and after two additional years, the degree of doctor of medicine. The increasing tendency for students seeking medical preparation is to take three years of collegiate training before entering upon medical studies. By so doing a student may, after one year in the University and Bellevue Hospital Medical College, receive the degree of bachelor of arts or of bachelor of science, given in this case by the College of Arts and Pure Science. On account of the superior value of the three year course in preparing

students for medical studies, this course is strongly recommended both by the college authorities and by those of the University and Bellevue Hospital Medical College.

College Chemistry Course

Students entering the freshman class of the College of Arts and Pure Science may elect a full four year curriculum with major stress upon the field of chemistry. This course leads to the degree of bachelor of science in chemistry and is described on page 46 of this bulletin.

February-September Courses

In order to meet the needs of students who are graduated from high schools in January, New York University has established in the second term a section of the freshman class in the College of Arts and Pure Science. This section will continue its regular studies, with a week's vacation at commencement time, throughout the summer until the middle of September. Students completing this course are able to begin the work of the sophomore year in the autumn following the January of their enrollment, thereby saving a full year of academic time. A special faculty is organized through the summer in order that this freshman year may be carried on without disadvantage to those students who are enrolled in it. This February-September group of freshmen may elect work in section A, section B, or section C (medical preparatory).

Requirements for Admission

(1) The applicant must present satisfactory written testimonials showing that he is a young man of good moral character. When the applicant comes from another college he must present a certificate of honorable dismissal.

(2) The applicant must have pursued a thorough course of preparatory study and must be proficient in fifteen units of secondary school subjects. A unit represents a year's study in any subject in a secondary school, constituting approximately a quarter of the full year's work. A unit may be also defined as representing the work performed during four or five periods a week for one year, each period to be not less than forty minutes long. The subjects required for the college are as follows:

For Section A.—English, three units; Latin, four units; either Greek, three units, or French, two units, or German, two units, or Spanish, two units; algebra, one and one-half units; plane geometry, one unit; and sufficient units to bring the total up to fifteen from the list of elective subjects given below.

For Section B.—English, three units; algebra, one and one-half units; plane geometry, one unit; solid geometry, one-half unit; trigonometry, one-half unit; elementary and intermediate French, three units, or elementary and intermediate German, three units, or elementary and intermediate Spanish, three units, or two units of each of two of the following languages: French, German, Spanish, Latin; either chemistry or physics, one unit; and sufficient units to bring the total up to fifteen from the list of elective subjects given below.

For Section C.—Medical Preparatory Course. English, three units; algebra, one and one-half units; plane geometry, one unit; elementary and intermediate French, three units, or elementary and intermediate German, three units, or elementary and intermediate Spanish, three units, or two units of each of two of the following languages: French, German, Spanish, Latin; biology, one unit; chemistry, one unit; physics, one unit; and sufficient units to bring the total up to fifteen from the list of elective subjects.

For further particulars, see page 18.

Elective Subjects: Advanced English, one unit; history, one or two units; Latin, four units; Greek, three units; French, two or three units; German, two or three units; Spanish, two or three units; solid

geometry, one-half unit; trigonometry, one-half unit; advanced algebra, one-half unit; physics, one unit; chemistry, one unit; biology, one unit; botany, one unit; zoölogy, one unit; geography, one unit; drawing, one unit.

A pamphlet giving detailed definitions showing what is included under each of the above subjects will be sent on application to the recorder.

(3) The applicant must pass such personnel and psychological tests* as may be required. Application for permission to take these tests should be made when the school certificate is filed. Personnel and psychological tests for applicants for the fall term will be held on Friday, July 1, Saturday, July 2, and Friday, September 16. Other dates will be arranged later. Special arrangements will be made for applicants living at a distance.

Sections A and B

Evidence of proficiency in these subjects may be given by the candidate in any one of five ways, as follows:

1. By Certificate of an Approved School. Students from approved schools may be admitted to the freshman class upon certificate, without examinations, subject to the following conditions: 1. The application for the admission of a student by certificate must be specific in character, stating that the student has attended the school at least one year, and has completed at least fifteen units of secondary school work. Blank forms of certificates for this purpose will be furnished by the University upon application. 2. The University does not bind itself to accept beyond the current year the certificate of any school in place of examinations, but will continue to accept certificates from those schools which shall have sent to the University students thoroughly prepared, as proved by their standing after admission.

2. By Certificate of the College Entrance Examination Board. The College Entrance Examination Board is an association of colleges and secondary schools formed to conduct uniform college entrance examinations at numerous points throughout the country. New York University is a member of the association and will admit to the college students who present a certificate showing they have passed the board's examinations in the subjects prescribed by the University for entrance. The board will hold examinations at University

*A statement of the purpose and nature of these tests will be mailed to all applicants for admission.

Heights June 20-25, 1921. All applications for this examination must be addressed to the College Entrance Examination Board, 431 West 117 Street, New York, N. Y., and must be made upon a blank form to be obtained from the secretary of the board upon application. Applications for this examination must be received by the secretary of the board at least three weeks in advance of the examination, *i.e.*, on or before Monday, May 30, 1921. An examination fee of \$6 is charged all candidates; and students who enter the College of Arts and Pure Science on the board's certificate, having paid the board's fee for examination, are exempted from payment of the matriculation fee. For further information regarding these examinations, and a complete list of the places where they are held, address *College Entrance Examination Board, 431 West 117 Street, New York, N. Y.*

Certificates of the College Entrance Examination Board will not be accepted for physics, chemistry, biology, botany, zoölogy, or geography unless accompanied by the applicant's laboratory notebook.

3. By Entrance Examinations of the College. No entrance examination will be held by the University in June in view of the examinations held at the University at that time under the direction of the College Entrance Examination Board. The University will hold examinations in the subjects prescribed for entrance from September 12-16, 1921, and from January 23-27, 1922, at University Heights, as follows:

Schedule

SEPTEMBER 12-16, 1921, AND JANUARY 23-27, 1922

Monday { *September 12, 1921*
January 23, 1922

Mathematics <i>a</i> (Elementary Algebra, complete).....	9.30-12.30
Mathematics <i>a</i> ₁ (Algebra to Quadratics).....	9.30-11.30
Mathematics <i>a</i> ₂ (Quadratics and Beyond).....	9.30-11.30
History <i>b</i> (Medieval and Modern History).....	1.30- 3.30
History <i>d</i> (American History).....	1.30- 3.30
Physics.....	3.45- 5.45
Botany.....	3.45- 5.45
Zoölogy.....	3.45- 5.45

Tuesday { *September 13, 1921*
January 24, 1922

Mathematics <i>c</i> (Plane Geometry).....	9.30-11.30
Mathematics <i>d</i> (Solid Geometry).....	9.30-11.30
Mathematics <i>cd</i> (Plane and Solid Geometry).....	9.30-12.30
History <i>a</i> (Ancient History).....	1.30- 3.30
History <i>c</i> (English History).....	1.30- 3.30
German <i>a</i> (Elementary).....	3.45- 5.45
Greek <i>b</i> (Xenophon's <i>Anabasis</i>)	3.45- 5.45

Wednesday { *September 14, 1921*
January 25, 1922

Latin (Second Year Latin).....	9.30-11.30
Mathematics <i>e</i> (Trigonometry).....	9.30-11.30
French <i>a</i> (Elementary).....	1.30- 3.30
German <i>b</i> (Intermediate).....	3.45- 5.45
Spanish.....	3.45- 5.45
Latin <i>NR 1</i> and <i>2</i> (Grammar and Elementary Prose Com- position).....	3.45- 5.45

Thursday { *September 15, 1921*
January 26, 1922

Latin (Cicero— <i>Manilian Law</i> and <i>Archias</i> , and sight Trans- lation of Prose).....	9.30-11.30
Drawing.....	9.30-11.30
Mathematics <i>b</i> (Advanced Algebra).....	9.30-11.30
Biology.....	9.30-11.30
Latin (Vergil— <i>Aeneid I, II, and IV or VI</i> , and sight Trans- lation of Poetry).....	1.30- 3.30
French <i>b</i> (Intermediate).....	3.45- 5.45
Greek <i>a</i> (Grammar and Elementary Prose Composition) ..	3.45- 5.45

Friday { *September 16, 1921*
January 27, 1922

English <i>1</i> (Grammar and Composition).....	9.30-11.30
English <i>2</i> (Literature).....	1.30- 3.30
Chemistry.....	3.45- 5.45
Physiography.....	3.45- 5.45
Greek <i>c</i> (Homer's <i>Iliad</i> , Books I-III).....	3.45- 5.45

Application for permission to take the entrance examinations should be addressed to *Miss Jeanne M. Elliott, University Heights, New York*, not later than September 5, 1921, for the September examinations, and not later than January 16, 1922, for the January examinations.

Students may take a part of the examinations as "preliminaries" a year before entrance, but no student will be examined who does not submit a certificate of preparedness for examination in the subject in which the candidate offers himself, from the school last attended.

Candidates offering themselves for examination in physics, chemistry, biology, botany, zoölogy, or geography must submit their laboratory notebooks at the time of examination.

4. **By Diploma of the Regents of the University of the State of New York.** The academic and college entrance diplomas of the regents will be accepted in satisfaction of the requirements for entrance when such diplomas cover the subjects required for admission to the freshman class.

5. **By Certificate from another College.** A letter from a college maintaining requirements for admission equal to those of the University, stating that the candidate has been admitted to the freshman class of that institution and is honorably dismissed in order to enter another college, will be accepted in satisfaction of the requirements for entrance.

Section C—Medical Preparatory Course

Evidence of proficiency in the subjects required for admission to section C may be given by the presentation of any one of the following certificates:

(1) A diploma of graduation from a four year high school course recognized by the regents of the University of the State of New York.

(2) A certificate of the College Entrance Examination Board covering fifteen units of secondary school subjects.

(3) Entrance examinations of the college covering fifteen units of secondary school subjects.

(4) A certificate of admission to the freshman class of a recognized college.

Fees*

Tuition in any of the sections, per year \$240.00

\$140 payable at the beginning of the first term and \$100 payable at the beginning of the second term, ten days of grace being allowed, at the end of which time non-payment will debar from classes. This rule applies also to room rents. If payment is not made in either term within ten days of the rendition of the bill, \$5 will be added to the amount of the bill.

Every student, upon matriculation must make a deposit of \$25 upon his tuition fee. This fee is non-returnable, but will be credited towards the tuition fee of the first semester.

Matriculation and Incidental

Matriculation fee (paid once only)	\$ 5.00
Fee for the athletic association for the year	10.00
Fee for non-athletic student activities for the year	7.50
Military incidental fee for the year	5.00
Diploma fee, covering commencement charges	25.00

Laboratory

Biology 10, 20, 11, 21, 31, 41, 32, 42, 53, 63, 54, 64, 65, each course	\$ 6.00
†Chemistry 12, 22, 13, 23, each course	6.00
Chemistry 14, 24, 15, 25, 32, 42, each course	10.00
Chemistry 16, 26, 17, 27, 30, 40, 50, 60, 63, 70, 80, 71, 72, 82, each course	12.00
Geology 10, 20, 30, 40, 31, 41, 33, 43, 51, 61, 71, 81, each course	5.00
Physics 10, 20, 30, 40, 31, 41, each course	5.00
Physics 50, 60, 72, 82, each course	7.00

Residence

Gould Hall, the gift of Mrs. Finley J. Shepard in memory of her parents, Mr. and Mrs. Jay Gould, was opened Thanksgiving Day, 1896. It will accommodate 112 students, and contains in its four stories 48 studies, each with an open fireplace; 64 bedrooms, accommodating 112 bedsteads; 8 bath rooms, most of them with shower baths; 112 clothes closets; 2 reception rooms. The entire building is thoroughly fireproof. The construction allows a choice of rooms in suites, differently arranged for one, two, or three students. All

*The Council of New York University reserves the right to change all tuition charges and fees at its discretion.

†The maximum fee in chemistry for any one student will not exceed \$30.

studies and bedrooms are heated by steam, have hardwood floors, and are lighted by electricity. Prices for rooms include light, heat, water, care of room, and use of furniture. Rent varies from \$65 a year, for the smallest single room, to \$255 for the highest priced corner suite. The furniture includes necessary articles, excepting bedclothing and towels.

Diagrams of rooms with prices will be sent upon application to Dr. Edward Gasparitsch, Assistant Bursar, University Heights. Reservations will be made in order of application.

Rooms in residence halls are rented upon the condition that all damage done to room or furniture be made good immediately by the tenant. All damage done to building or contents outside of any students' room, unless made good by the person doing the same, will be assessed by the assistant bursar equally upon the tenants of the hall or the division of the hall affected, as the authorities may decide. Tenancy of rooms may be terminated by the University at any time for violation of the published rules respecting residence halls.

Several fraternities own or rent houses to accommodate their members.

Loan Funds

Deems Loan Fund

Upon the celebration, October 3, 1887, of the twenty-first anniversary of the Church of the Strangers, the late Rev. Dr. Charles F. Deems, its pastor, under whose leadership the church was organized in the University chapel, founded this fund. The moneys constituting it are to be lent to students from time to time, in convenient sums, on satisfactory security, to be repaid with interest at a date agreed upon after leaving college.

Gould Fund

In October, 1896, a loan fund was founded by Mrs. Finley J. Shepard, from which loans are made to students of the University on conditions similar to those observed in connection with the Deems fund.

Charles Force Deems Memorial Loan Fund

Established 1905, as a memorial of their late pastor, Rev. Dr. Charles F. Deems, D.D., LL.D., by the Sisters of the Strangers, a body of devoted women in the Church of the Strangers, New York City. Loans are made to students under the same conditions as those governing the Deems fund.

Scholarships

All scholarships may be withdrawn from the appointee at any time by the faculty upon his proving unfaithful to his duties as a member of the College of Arts and Pure Science.

Candidates for any of the following scholarships, barring the preparatory school prize scholarships, should communicate with the dean of the college not later than June 1, giving full information as to training and plans for college work.

No scholarships granted by the University are available for students enrolled in the two year medical preparatory course.

Students who have been awarded scholarships are exempt from the psychological and personnel tests.

Latin-American Scholarships

Free tuition scholarships, not to exceed ten in any one year, are offered to students in Latin-American countries.

State Scholarships

A certain number of scholarships are offered by the state of New York, applying on tuition in the college.

Preparatory School Prize Scholarships

The college offers each year forty high school prize scholarships. A student nominated for one of these prize scholarships should be one whose academic rank, general character, influence among his classmates and promise of usefulness, make him likely to have an honorable record in college and so reflect credit upon the school from which he comes. Candidates for these scholarships must be able to enter college without conditions. Scholarships, however, will not be awarded exclusively on the basis of high academic standing. These scholarships are \$125 in amount.

The following plan of selection is proposed to the principals of high schools whose graduates are eligible for these scholarships. It is recommended that the principal send to the University, if possible, during the month of May in each academic year, or in the month of January in the case of students entering the freshman class of mid-year, a list of any students who, among all who may be interested in entering the College of Arts and Pure Science, are in his opinion qualified for appointment to a scholarship on the basis of the standards indicated above. Upon receiving such nominations, the dean of the College of Arts and Pure Science will arrange for an interview with the candidates. Each candidate for a scholarship

may present evidence of his scholastic standing, and, likewise, letters from those who are qualified to speak of his fitness for appointment to a prize scholarship. On the basis of such interviews and credentials, the faculty of the college will name the successful candidates. It will be the aim to distribute the award of these forty scholarships as widely as possible among the high schools from which New York University receives its students; but in the last analysis, the merit of the candidates, rather than the fact of his graduation from one school or another, will determine the award. A given school in any one year may receive one scholarship or several or none at all, according to the number and comparative merits of the candidates it may present.

Foundation Scholarships

The University has in its gift a few scholarships of 1832, which may be given as beneficiary scholarships in special cases. Each of these provides a part of the tuition fees of a student.

Thomas S. Baley Scholarship

The Thomas S. Baley scholarship was founded by Mrs. Hannah Ireland and endowed with \$5,000. The income of the fund is paid to one or more students in the college who may be preparing for the ministry. This scholarship is awarded by the chancellor of the University, who has also power to withdraw its benefit when the recipient has proved himself unworthy.

Gould Memorial Scholarships

Seven scholarships were founded and endowed with \$6,000 each by Mrs. Finley J. Shepard in memory of her father. They are as follows:

I. First Jay Gould Scholarship. II. Second Jay Gould Scholarship. III. Third Jay Gould Scholarship. The nomination to each of these scholarships is in the gift of the founder.

IV. Delaware County Scholarship. V. Roxbury Scholarship.

The candidate for the Delaware County scholarship or for the Roxbury scholarship must be a resident of Delaware County, New York, and a certain preference among candidates will be shown to residents of Roxbury and vicinity in said county.

VI. Western Scholarship—The candidate for the Western scholarship must be a resident upon the line of the Missouri Pacific railway system, including the Iron Mountain railway and leased lines. A certain preference among candidates will be shown to sons of persons connected with the railways above named.

VII. Southwestern Scholarship—The candidate for the Southwestern scholarship must be a resident upon the line of the Texas Pacific, the St. Louis Southwestern, or the International and Great Northern railway. A certain preference among candidates will be shown to sons of persons connected with the railways above named.

Northrop Scholarship

The Northrop scholarship was founded by Miss Ida Northrop and endowed with \$5,000. The nomination to this scholarship is in the gift of the founder.

Ralph Hoover Shaw Scholarship

The Ralph Hoover Shaw scholarship was founded by Professor and Mrs. Edward R. Shaw, in memory of their son, a member of the class of 1900, who died January 2, 1899. It is endowed with \$2,500 to cover the yearly tuition of a student in need of aid. Preference is given to applicants from Bellport, L.I., and from Yonkers, N. Y.

Irvington and Tarrytown Scholarships

The Irvington and Tarrytown scholarships were founded by Mrs. Finley J. Shepard. The former scholarship is awarded to one of the young men of the graduating class of the Irvington High School at Irvington, N. Y., and the latter in like manner to one of the young men of the graduating class of the Washington Irving High School at Tarrytown, N. Y., the scholar to be selected by the principal of the school and the board of education in charge of the school. Should the appointee from the graduating class be unable to avail himself of the scholarship, an alternate is to be appointed by the principal and the board from among the graduates of the school. The appointee is to hold the scholarship for the full college course of four years. In case either scholarship is not filled under the above rules, the University will award the same to some deserving student, but for the period of one year only. Each scholarship is endowed with \$6,000.

The Class of '90 Scholarship

This scholarship was founded in 1905 by a gift of \$1,000 by the class of 1890. The income of the fund is to be used to pay in part the tuition of a student in the College of Arts and Pure Science, College of Engineering, or Graduate School, preference being given to any student recommended by the class of 1890.

Catlin Memorial Scholarships

These scholarships were founded in 1907 by a bequest of \$10,000 by the late Catherine L. R. Catlin, in memory of her brother, Charles M. Catlin, who received the degrees of bachelor of arts and master of arts from the University in 1848 and 1851, respectively, and who died in 1871. The income of the fund is for the perpetual maintenance of tuition scholarships, at least one of which shall be awarded each year to a deserving student of the College of Arts and Pure Science.

N. W. Stuyvesant Catlin Scholarship

This scholarship was founded in 1914 by the bequest of \$10,000 by the late Cora V. R. Catlin. The income of the fund is to be used to pay the tuition fees of students in the College of Arts and Pure Science.

Charles S. Webb Classical Scholarship

This scholarship was founded in 1910 by bequest of \$1,000, of the late Charles S. Webb of the class of 1851. The income of the fund is to be used to pay in part the tuition of a student taking the classical course in the College of Arts and Pure Science.

Perry McDonough Collins Scholarships

During the year 1917, New York University received a bequest of \$550,000 by the will of Miss Kate Collins Brown in memory of her uncle, Perry McDonough Collins. In accordance with the conditions made by the donor, the Council of the University has decided that the income from this bequest shall be available for scholarships in the College of Arts and Pure Science and in the College of Engineering. The settlement of the estate renders these scholarships now available.

The Council, in gratefully accepting the bequest, records the wish that the scholarships thus provided shall be awarded to students who would for financial reasons be unable otherwise to secure a college training, but who are of a class superior both in scholastic excellence, and in qualities of leadership, initiative, and personal manliness. The Council prescribes the following specific rules and regulations to govern the granting of such scholarships.

1. Perry McDonough Collins scholarships shall be awarded only to matriculated students in the College of Arts and Pure Science and in the College of Engineering, who, in the judgment of a committee of selection, to be appointed by the Council from the faculties of the two schools before named, have shown themselves capable

of profiting by a full four years' course of collegiate study, and possessed of such all-around character that it would be a public benefit to provide them with the means of completing such a course, and whose pecuniary conditions and resources are found by the committee of selection to be insufficient to defray all the expenses of a college education.

2. The Perry McDonough Collins scholarships will be of the annual amount of three hundred dollars (\$300) each.

3. The renewal of one of any of these scholarships for a second or subsequent year, will be dependent upon the record for scholarship and character achieved by the holder.

4. The holder of a Perry McDonough Collins scholarship may in any case retain the scholarship only so long as he remains in full academic attendance in the College of Arts and Pure Science or in the College of Engineering.

5. A candidate for appointment to one of these scholarships should arrange, whenever practicable, for an early personal interview with an authorized representative of the school which he plans to enter. He should also present written testimonials from his former teachers and from others who are qualified to speak of his character and ability.

The administration of these scholarships has been entrusted to a committee of selection, to whom all communications should be addressed as follows: Committee on Selection, Perry McDonough Collins Scholarship, New York University, University Heights, New York.

Prizes

Eucleian Prizes: A. Ogden Butler Trust

This trust, consisting of \$5,000, is held by the University for the benefit of the members of certain societies. One-seventh of the income from that half of the same which is held for the Eucleian literary society is devoted by the will of the founder, Mr. A. Ogden Butler, a member of the class of 1853, who died in 1856, to "Annual prizes to those two acting members of the society who may in each year be the authors of the best two essays on any subject, of which the chancellor of the University, with the professors of belles-lettres and Greek, shall be the judges."

These prizes are given under the following rules:

1. All essays in competition in any year shall be put into the hands of the head of the English department not later than April 1.

2. The prize shall be conferred at commencement, and the names of the recipients included in the annual catalogue.

German Prize

A prize of the value of \$50, founded by the late Herman Ridder, will be awarded at commencement for the best essay on some topic connected with German literature. The subject for 1921-22 is: "A Comparison of the Social Dramas of Goethe and Schiller with the Early Works of Gerhart Hauptmann."

The competition is open to all students in German.

Sandham Oration Prizes

The income of the George Augustus Sandham fund is devoted to the maintenance of an oratorical contest open to seniors and juniors in the College of Arts and Pure Science and in the College of Engineering, and to such other students in these schools as have credit in public speaking courses above freshman grade. Two prizes, of \$100 and \$75 respectively, will be awarded on the basis of excellence in the composition and delivery of original orations. The conditions of the competition are as follows:

1. *The orations are to be written upon subjects chosen by the writers.*
2. *These orations must contain not less than 700 words, nor more than 1300 words.*
3. *Orations submitted for the contest must be mailed to the department of public speaking not later than April 1.*
4. *Such orations are to be signed with a fictitious name; and the fictitious name, with the name of the writer, must be written on a card and inclosed in an envelope on the outside of which is to be inscribed the title of the oration. This envelope is to be mailed with the oration.*

The orations thus presented will be submitted to a committee of judges, who will select a number, not to exceed eleven, on the basis of excellence in composition. The orations will then be returned to their authors, and the men thus designated will prepare for oral delivery of their orations at a preliminary contest, which will take place early in May. At this contest, and also at the final test, the excellence of the delivery will have equal weight with the excellence of composition in determining the decision of the judges. These judges will choose six men to speak for the prizes at the final contest, which will take place on Monday of commencement week in the auditorium. No student who has won a prize in one competition is eligible to enter further competitions for these prizes.

Frederick Seward Gibson Prize

This prize of \$70, the income of \$1,500, was founded in 1901 from the estate of the late Frederick Seward Gibson, of the class of 1896, and is offered annually to undergraduates who are members in regular standing of the senior class in the college.

The prize is offered for an essay of high literary merit on a subject proposed by the professor of English literature as a proper subject for treatment in a literary form, and approved by the college faculty.

The essays offered in competition for this prize should contain not more than five thousand words, be signed with a fictitious name, and delivered to the dean of the college not later than the first day of April. The award will be made by judges appointed by the professor of English literature and the dean of the college, and will be announced at commencement.

James Gordon Bennett Prize

This prize was established May, 1893, by the late James Gordon Bennett for "The best essay in English prose upon some subject of American governmental, domestic, or foreign policy of contemporaneous interest." The prize will be awarded at commencement, in accordance with the following rules:

1. *Competition for the prize shall be opened to any "undergraduate student of the senior class, or special student of two years' standing."*

2. *The subject shall be announced by the faculty not later than the first day of July.*

3. *Competitors shall hand in their names to the dean on or before the fifteenth day of January.*

4. *All essays in competition for the prize must be typewritten on white letter paper of the prescribed size (8 x 10 inches).*

5. *The essay shall contain not less than two thousand five hundred (2500) words, nor more than five thousand (5000) words.*

6. *The essays shall be handed to the dean on or before the first day of May.*

7. *Each essay shall be signed with an assumed name, and shall be accompanied by a sealed envelope indorsed with the said assumed name and containing the true name of the author.*

8. *The committee of awards shall consist of the professors of English literature, of political science, and of history, or shall be a special committee appointed by the faculty.*

9. The announcement of the award shall be made on commencement day. The prize is \$50 or the income of \$1000.

The subject assigned by the faculty for the year 1921-1922 is: "The History of Governmental Control of Immigration in the United States."

Samuel F. B. Morse Medal

Professor Samuel F. B. Morse provided in his will for a gold medal to be awarded for excellence in scholarship. In honor of the founder and his great contribution to the science of physics, the medal will be awarded to the student showing special ability in that department. In the award of the medal, general scholarship will be allowed to weigh in proportion to scholarship in physics as one to two.

Sherborne Vernon Damerel Memorial Prize

This prize, interest of the Sherborne Vernon Damerel prize fund of \$1,000, given by Mr. and Mrs. George Damerel in memory of their son, a member of the class of 1910, who died June 24, 1909, is awarded on commencement day, by vote of the joint faculty, to a member of the senior class of the College of Arts and Pure Science or of the College of Engineering who has shown an earnest endeavor in his studies and in the general welfare of his class and college, and who gives promise of a useful life.

In the selection of the recipient, emphasis is laid primarily upon qualities of manly character and influence, and secondarily upon scholarship.

1907 Medals for Debate

Immediately after their graduation, the class of 1907 pledged itself to give a medal to any student who shall by competition earn a place upon a debating team representing the College of Arts and Pure Science or the College of Engineering in any intercollegiate contest. In the year 1911, the class generously extended this gift so that it will apply in case two or more teams in a given year represent the school at University Heights in intercollegiate debates. As often as a student wins a place upon the debating teams, he is entitled to receive a bar which will be attached to the medal first won.

Macdonald Memorial Prizes in Public Speaking

In January, 1913, the class of 1909 established two prizes of twenty-five and fifteen dollars, respectively, for excellence in public speaking, and named them in memory of their first class president, William Stuart Macdonald, who was accidentally killed at Boardville,

New Jersey, in March, 1908. Competition for these prizes is open to freshmen who have taken public speaking in the College of Arts and Pure Science or in the College of Engineering. The contest consists in the delivery of declamations, and will take place at the end of the spring term.

Twelve men will be selected from the courses indicated on the basis of ability in speaking; from whom, at a preliminary contest, eight speakers will be chosen for the final competition. Declamations selected for this contest should be approved by the instructor in charge of the courses, and should not exceed one thousand words in length.

William Kendall Gillett Medal

A gold medal, donated by Professor and Mrs. Lawrence A. McLouth in memory of the late Professor William Kendall Gillett will be awarded at commencement to a student of the senior class for general proficiency in French.

Fellowships

A. Ogden Butler Fellowships

Two fellowships, founded by Mr. Charles Butler, are offered each year to students completing the course in arts, as incentives to graduate study, namely:

The A. Ogden Butler classical fellowship, endowed with \$6,000.

The A. Ogden Butler philosophical fellowship, endowed with \$6,000.

These fellowships are equal in rank and will be bestowed by the faculty upon two members of the graduating class, standing in the first third of the class. A student in order to receive the award of a fellowship must have such attainments in scholarship, as in the judgment of the faculty, will justify him in pursuing advanced studies in the liberal arts. Further, the student must have enrolled himself as a candidate for the degree of master from the University under such rules as may be prescribed. The work of the fellow shall include research in the line of study for the encouragement of which the fellowship is founded and shall also include teaching duties such as the chancellor may appoint.

If, in any year, the fellowship be not awarded or the income of an awarded fellowship become not payable because its incumbent has not met the conditions named, then the income of such fellowship shall be devoted to the fund for graduate scholarships.

William H. Inman Fellowship

Founded by Miss Inman. The principal of this fund, amounting to \$5,000, is held by the University, the income arising from the same to be used for the support of the William H. Inman fellowship. This fellowship is to be awarded to a student completing an undergraduate course whose scholarship places him in the first third of his class, and whose attainments are such, in the judgment of the faculty, as will qualify him to pursue advanced studies in science. Further, the student must have enrolled himself as a candidate for the degree of master in the University, under the rules prescribed. Further, he must serve for one year as a demonstrator or assistant in the laboratory of analytical chemistry. But the last named condition may, for sufficient reasons, be suspended by action of the faculty. The tenure of the fellowship is for one year.

Discipline

Each student upon entering is required to sign his name on the matriculation card, subscribing to the following pledge:

"We, whose names are hereunto attached by our personal signatures, being applicants for admission to the College of Arts and Pure Science of New York University, do hereby pledge ourselves, on being admitted, to conform strictly and at all times to the rules of the institution, and by all proper means to promote its best interests."

Each student is assigned to a member of the faculty, who is to act as his special adviser. The student must get the consent of his special adviser to his choice of studies, and to any subsequent alteration therein, and to any special action desired from the faculty, before its submission to that body.

Every student is required to register with the recorder of the faculty on the first Monday or Tuesday of the fall term. Not later than 5 p. m. on Wednesday, September 21, 1921, he must file with the recorder a card containing his choice of studies for the ensuing year, approved by his special adviser. Failure to comply with either of these rules will subject the student to a fine of five dollars in each instance.

The rules of the faculty provide for prompt correspondence with the parent or guardian of each student in any case requiring it, and especially in case of unexcused absence or serious deficiencies in scholarship.

A printed copy of the rules governing students of the college may be secured from the secretary of the faculty.

Term and Examination Reports

The name of each student admitted to the college is entered upon a card by the recorder together with the conditions under which the student has been admitted, the result of every examination required of the student, and a copy of any action that may have been taken by the faculty respecting him, whether concerning his scholarship, attendance, or behavior. This card will be submitted upon request to the student's parent or guardian. In the last week of each term, examinations are held, covering, in the case of each student, all the branches of study pursued by him.

Reexaminations are allowed only in courses rated as prescribed for all students and in those included in the student's major. In all other courses conditions can be removed only by repeating the course in which the condition has been incurred or by taking a subsequent additional course of equivalent credit.

Every student must take not less than fifteen nor more than eighteen credits per week, unless a special schedule for a smaller number of hours is approved by the faculty.

Requirements for Graduation

The bachelor's degree in arts, pure science, commerce, and chemistry are annually conferred at commencement by the chancellor upon the vote of the Council.

The faculty of arts and science will recommend for such degrees students who shall have completed 126 credits in accordance with the rules and general plan of study described hereafter, and who shall in addition have presented a satisfactory thesis upon a subject approved by the faculty. The student must submit the subject of his thesis, previously approved by his special adviser, to the dean of the faculty on or before December 20 of his senior year.

A typewritten copy of this thesis on paper of the prescribed size ($8\frac{1}{2} \times 11$ inches) must be presented to the dean of the faculty on or before April 15. A fine of five dollars will be imposed upon each student who fails to comply with this rule. The thesis must include not less than two thousand (2,000) nor more than three thousand (3,000) words. The subject of the thesis must be related to one of the studies of the major which the student has been pursuing. An essay previously accepted as class work will not be received as a thesis.

Ethical and Religious Training

College assembly at University Heights is conducted by chaplains chosen by the University from among neighboring or other clergymen. Daily attendance at assembly is required of all the student body at the Heights, with the exception of seniors who are taking the full first year work in one of the University's down town schools, and such other students as elect the work defined below. No assemblies are ordinarily held on Wednesday or Saturday.

A student is allowed twelve (12) absences from assembly during any one term. As often as his absences shall equal thirteen (13) in number, the student shall be required to submit within three weeks of the time of assignment of a subject, an original, ethical essay of not less than 1,800 words upon a subject assigned by the dean of his respective school, touching upon morals or religion. These themes are carefully graded and marked on the same basis as work covered by a classroom attendance of one hour daily for one term. Should the essay fall below passing grade the student will be required to submit an essay upon another subject until such time as his work is of passing grade. Failure to submit an essay within the prescribed time, or to secure a passing grade, will count as a condition in a one hour course until such deficiency is removed.

Students who have ethical essay assignments outstanding for more than one term or who have not paid the fees therefor, will be debarred from registration.

As often as thirteen (13) absences are recorded against a student a fee of \$2.50 will be charged to defray the expense occasioned by the clerical work arising from the assignment of essay subjects and the reading and grading of essays submitted. Such part of that fee as is not required for this work will be contributed to the library fund of the University.

When a student has been excused from all classes for five (5) days, his absence from assembly for that time will likewise be excused. Absence for less than five consecutive days will count against him.

Department of Military Science and Tactics Reserve Officers' Training Corps

A unit of the Reserve Officers' Training Corps has been established at the University, with the primary object of qualifying, by systematic and standard methods of training, students who can perform intelligently the duties of commissioned officers in the military forces

of the United States in time of national emergency. A four year course is offered the student, with a view of giving him a broad practical military education with the least possible interference with his civil career.

Military drill for three hours a week is required of all freshmen and sophomores. This is arranged with special reference to the physical needs of the student. The work is under the direct supervision of officers of the Regular Army. Students who show by their proficiency that they are especially qualified for advanced work may elect to continue their military education until graduation. Those who continue the prescribed course for four years and who complete in addition a course in camp training, not exceeding six weeks duration as prescribed by the Secretary of War and maintained by the government without expense to the students in attendance, are eligible, upon graduation from the University, for reserve commissions in the United States Army. They are also eligible for temporary commissions of six months in the Regular Army, in order to acquaint them further with the service and to enable the government to ascertain their qualifications for future promotion.

Freshmen and sophomores who are physically unable to drill, or who are not assigned to non-combatant duties in the cadet corps, are required to take physical training. This course is especially designed for remedial purposes, and the work is largely individual, adapted to the needs of each student under the guidance of experts. *All members of the two lower classes are required to be engaged in drill or non-combatant work of the cadet corps, or in the courses in physical training.*

The condition and progress of students will be watched, by the aid of thorough physical examinations, the first upon entering college and subsequent ones at periodic intervals or whenever deemed necessary.

Young Men's Christian Association

A branch of this association is actively maintained by the students. The work is in charge of a resident secretary, and the headquarters are in the Y. M. C. A. hut.

Literary and Musical Societies

A varsity dramatic society and a varsity debating society are maintained by the students under the direction of faculty coaches. The dramatic society is in part sustained by a fund raised in 1919

by its friends in memory of Harold Victor Arnold, prominent in the plays staged by the society in 1916, who died in the Argonne on the field of honor in 1918.

The Eucleian literary society holds stated meetings for the discussion of literary subjects. The society owns a library which is increased from year to year by the income of the A. Ogden Butler bequest.

The students maintain glee, banjo, and mandolin clubs. A competent director is secured and concerts are given in neighboring cities and at home.

Physical Training and Athletic Sports

Athletic sports in the University are under the direction of the university athletic association, the faculty of arts and pure science, the faculty of engineering, and the director of athletics, Professor Henry C. Hathaway.

Student Publications

The Violet is the college annual and is published each year by the junior class.

The Medley is a humorous monthly published by the Eucleian literary society.

The New Yorker is published weekly by the students.

Grounds and Buildings

The Memorial Library, begun in 1895 and completed in 1900, is one of the most beautiful library buildings in the United States. In addition to the library proper the building contains the University auditorium with a seating capacity of fifteen hundred, and several rooms for administration offices. The building was the gift of Mrs. Finley J. Shepard, in memory of her parents, Mr. and Mrs. Jay Gould.

The Hall of Fame, comprising museum and colonnade, just west of the library, is unique among college buildings, and is too well known to require description.

The Hall of Languages contains offices and classrooms. It is a fireproof building, equipped with the latest systems of heating and ventilation.

Cornelius Baker Hall of Philosophy, a new fireproof lecture and recitation building, was the gift of Mrs. John S. Kennedy (1912) in memory of her father, Cornelius Baker, a member of the Council from 1834 to 1838.

Charles Butler Hall is an old mansion which was standing on the grounds at the time of the University's purchase. It has been re-modeled for the classrooms and laboratories of the department of physics.

Gould Hall, a residence hall, stands on the eastern edge of the campus, nearly a quarter of a mile distant from the library. It is fully described elsewhere.

The Andrew H. Green Memorial Laboratory, erected 1904 by Mr. Frederick W. Devoe, has drawing rooms on the first floor, and the laboratories and lecture room of the department of biology on the second floor.

The Y. M. C. A. hut was erected during the winter of 1918-1919 for the use of the local association. It forms a center for the non-athletic student activities at University Heights.

The College Gymnasium at University Heights is a building measuring 60 feet by 100 feet, with a running track in the gallery upon which twenty laps make one mile. Sets of apparatus of the latest patterns were provided by the liberality of the late David Banks. It has a floor surface of 6,000 square feet and contains the director's office, examination room, dressing rooms, and bath rooms. In the dressing rooms are ample locker accommodations.

Military headquarters is in an army barracks, equipped for the day use of the reserve officers' training corps and contains an arsenal and a sub-calibre rifle range. It is situated on the south side of the University grounds.

The athletic ground is called Ohio Field, in honor of several former residents of Ohio, for many years citizens of New York, who contributed towards the establishment of University Heights. This field has a quarter-mile cinder track, and ample space for football, baseball, and general athletics. There is a covered grandstand with a seating capacity of 1,200. Upon the west side of Ohio Field is the lawn tennis ground, comprising four clay courts.

Library and Laboratory Facilities

The University Library, at University Heights, contains about 90,000 volumes, and includes the Oswald Ottendorfer library of

Germanic literature, the LaGarde library of Semitic languages, the Hübner classical library, the Botta library, and the Gillett memorial library of romance languages and literature. Eighteen departments have each their own seminar rooms. These seminar rooms contain the working libraries of the departments, and are open to advanced students. Books may be drawn by students for use in their rooms.

The income of the Burritt Hamilton Shepard fund, which was established upon Founders' Day, April 18, 1889, by the late Elliott F. Shepard, in memory of his brother, who died while a student of the University, is devoted entirely to supplying the reading room.

The Havemeyer Chemical Laboratory, provided by the liberality of the late William F. Havemeyer, in memory of his father and brother, is a building three stories in height and occupies an area of sixty by seventy feet. The lowest story contains the laboratories of industrial chemistry and various storerooms. The next floor contains a large lecture room, with all appliances for lighting and ventilation, as well as for experimentation in pure and applied chemistry, a laboratory for advanced work in chemical research, and the private laboratory of the director. The top floor contains several private laboratories, the Solomon Loeb chemical library, and laboratories for organic chemistry and quantitative analysis. All the laboratories are provided with the usual appliances, as well as with lines conveying steam, compressed air, and suction, to the various desks, and oxygen and other gases to appropriate working tables. The ventilation throughout is by forced draft. A large extension of the building contains the laboratories for inorganic chemistry and for qualitative analysis, together with balance rooms and storerooms.

The laboratory of the department of geology and the geological museum are located temporarily in the Hall of Philosophy. The collection numbers about 30,000 specimens, and the laboratory is equipped with machinery for cutting and polishing rocks and fossils.

The laboratory of the department of physics occupies three floors in Charles Butler Hall. The testing laboratory is in the engineering building. They are equipped with the usual apparatus, and are sufficiently large to allow the individual student space for original investigations.

The laboratory of biology occupies the entire second floor of the Green Laboratory building and is equipped with a small vivarium, the necessary microscopes and microtomes, and supplied with abundant material for the work in this department.

Course of Study

Upon admission to the freshman class the student must enter that section of the class for which he has passed the entrance requirements. A student who has completed the prescribed courses of section A becomes a candidate for the degree of bachelor of arts upon the completion of any major, two minors, and a sufficient number of free electives to bring the total number of credits up to 126. He may at his option become a candidate for the degree of bachelor of science by choosing a major from the exact and natural science group.

A student who has completed the prescribed courses of section B becomes a candidate for the degree of bachelor of science upon the completion of any major, two minors, and a sufficient number of free electives to bring the total number of credits up to 126.

Each student must enroll for not less than 15 credits. No more than 18 credits in any one term may be counted toward graduation.

Prescribed Subjects

The following subjects (sixty credits in section A and fifty-four credits in section B) are prescribed for all students in the two sections respectively, and with the exception noted on p. 44 must be completed by the end of the sophomore year: English 10, 20=6 credits; either French or German or Spanish, 11, 21 or 12, 22 and 30, 40=12 credits; mathematics 10, 20 or 11, 21=6 credits; philosophy 30, 40=6 credits; history 30, 40=6 credits; either physics 10, 20 or 30, 40 or chemistry 10, 12, 20, 22, or 11, 13, 21, 23=6 credits; either biology 10, 20 or geology 10, 20=6 credits; public speaking 10-20=2 credits, and military training or physical training 10, 20, 30, 40=4 credits.

And in addition for section A, either Latin 10, 20 or Greek 11, 21=6 credits.

NOTE: The alternative ancient language may be offered in section A in place of 6 of the 12 credits in modern language.

[The scholarship committee may at its discretion, and with the concurrence of the head of the English department, require any student to take an additional assigned course in English composition, whenever a specific report from any department shall indicate serious deficiency in the correct use of the English language. For this course no credit will be given for graduation.]

Majors and Minors

A *major* will consist of at least eighteen credits in sequential courses (normally three credits per semester for three years) and a graduation thesis in one department. The choice of a *major* must be made before the end of the sophomore year and the *major* must be continued through the junior and senior years.

Each minor will consist of twelve credits (normally three credits per semester for two years), in one department.

The first minor may be chosen in any department other than that of the major, the second minor must be chosen from another group than that of the major, and two minors may not be taken in one department.

A statement of the courses constituting majors and minors in each department will be found under the heading *Description of Courses* for that department. Any change from one major or minor to another must receive the prior approval of the scholarship committee and will be permitted only upon the understanding that all the courses prescribed in the major or minor finally chosen shall be completed before graduation.

The most important departments of instruction are classified in three groups as follows:

GROUP I	GROUP II	GROUP III
<i>Language and Literature</i>	<i>Social Science and Philosophy</i>	<i>Exact and Natural Science</i>
Greek	History	Mathematics
Latin	Political Science	Physics
English	Economics	Chemistry
German	Sociology	Biology
French	Philosophy	Geology
Spanish		
Public Speaking		

Subjects open to student election but not included in the above classification may be chosen as free electives.

Free Electives

Courses not taken as prescribed courses and not included in the student's major and minor sequences may be chosen as free electives to complete the 126 credits required for graduation, provided that the prerequisites have been passed. First year courses in a foreign language will not be accepted for credits toward a degree unless followed by a second year course in the same language.

Special Advisers

In making his choice of courses the student must consult his special adviser and must elect such studies as manifestly will be profitable to him.

After matriculation each student is assigned to a member of the faculty who is to act as his special adviser during the freshman and sophomore years. Before the beginning of the junior year, when the student signifies his choice of a major, he will be assigned to a member of professorial rank of the department of his major, who will act as his special adviser and upon whose advice and with whose consent he will select his studies for the remainder of his course.

Senior Electives

Seniors receiving special permission of the faculty may elect as part of their required work certain of the courses of instruction in the Graduate School, School of Pedagogy, or School of Commerce, Accounts, and Finance.

A course so taken will be counted as part of the required work for the degree of bachelor, but not as part of the preparation for the degree of master or doctor. In the announcements of the Graduate School courses open to election by seniors under this rule are numbered from 101 to 199.

Seniors who intend to qualify for teaching in the public schools of New York state should notice that they are required to complete a minimum course of study approved by the state commissioner of education for the training of teachers. The following subjects are specified: Psychology—general and educational, 90 hours; history of education and principles of education, 90 hours; methods in teaching, 60 hours; observation, 20 hours.

The following courses in the School of Pedagogy, supplementing work given in the College of Arts and Pure Science in the field of psychology, are suggested to the student who wishes to qualify under this requirement: Principles of education, general method, educational psychology, history of education, methods in arithmetic, methods in geography and reading, and observation.

Psychology, taken in the college, and educational psychology, taken in the School of Pedagogy, will together satisfy the state requirement of 90 hours in general and educational psychology.

Students who may have completed 96 credits of college work may elect for their senior year:

1. Not less than three credits each term, which must include the senior courses of the major besides the time required for the bachelor's thesis.

2. In place of other work in the college, the first year's work of either the Medical College, the School of Law, the School of Pedagogy, or any one of the theological seminaries represented in the Senate may be pursued.

Upon the completion of the required college work to the satisfaction of the faculty, and the presentation of a certificate from the faculty of one of the professional schools above named testifying to the completion of the first year's course of the school, the candidate will be eligible for the bachelor's degree.

Students under twenty-one years of age must bring the written request of parents or guardians in order to obtain permission to elect the first year of a professional school, as a part of the fourth year of the undergraduate course.

It is strongly urged that students should plan to give their entire fourth year to college work proper, unless exceptional attainments and maturity of age make professional study advisable.

NOTE: Students who expect to avail themselves of this privilege should so arrange their choice of studies that they may complete their two minors by the end of the junior year.

The committee on scholarship, acting under the instructions of the faculty, may allow modifications in the detail of the above regulations in exceptional and meritorious cases.

Classification of Students

All students will be ranked in the several classes as follows:

Freshmen—Those having less than 26 credits.

Sophomores—Those having 26 to 57 credits, inclusive.

Juniors—Those having 58 to 90 credits, inclusive.

Seniors—Those having 91 to 126 credits, inclusive.

Honors System

1. A student may become a candidate for honors in his major subject.

2. Candidacy must be announced after the end of the sophomore year and before the beginning of the junior year. The student must have attained a grade of A or B in all courses thus far taken in the department chosen for his major, and shall not have attained a grade lower than C in more than one course of his first two years.

3. If, during the progress of the honors study, the candidate receives more than one grade below B for courses included in the honors series, he thereby ceases to be a candidate for honors. He may proceed toward his degree in the usual way, except that any course credit given for collateral reading already accomplished, as specified below, shall be placed against the requisite number of free elective units; and thereafter no such reading shall replace any such electives required to complete his 126 semester hours.

4. The candidate shall, in addition to passing with high grades, the regular courses included in his major and two minor series, take certain extra work involving reading or other independent study. A specific statement of the reading required and of the nature and amount of other work demanded, signed by the head of the department in which honors are sought, must be filed by the candidate with the recorder at the beginning of each year of study for honors. This work will be given 3 hours per week semester credit in lieu of part of the free elective courses of the junior and senior years, and will require at least 10 hours per week of the student's time.

5. No courses anticipated by admission to advanced standing may be counted in the honors series.

6. At the end of each term a preliminary written examination will be held covering the honors reading of that term. At the end of the senior year a final examination, a part of which at least shall be oral, must be taken, covering the entire ground of the honors series. It shall be given by a committee composed of the professorial members of the department concerned, with such other members of the faculty as may be designated by the head of the major department with the approval of the dean.

7. The thesis must be of a grade of A or B.

8. Honors are conferred by vote of the faculty upon the successful completion of the honors course and when so conferred will be printed upon the commencement program and entered upon the student's diploma.

OUTLINE OF COURSES

FOUR YEAR COLLEGE COURSE

Freshman Year: September-June Division

Section A

<i>First Term</i>	<i>Credits</i>	<i>Second Term</i>	<i>Credits</i>
Latin 10 } or Greek 11 }	3	Latin 20 } or Greek 21 }	3
Public Speaking 10.....	1	Public Speaking 20.....	1
English 10.....	3	English 20.....	3
Mathematics 10 or 11.....	3	Mathematics 20 or 21.....	3
Other Language.....	3	Other Language.....	3
Elective.....	3	Elective.....	3
*Military Science 10.....	1	*Military Science 20.....	1
<hr/>		<hr/>	
17		17	

Section B

English 10.....	3	English 20.....	3
Public Speaking 10.....	1	Public Speaking 20.....	1
Modern Language.....	3	Modern Language.....	3
Mathematics 11.....	3	Mathematics 21.....	3
Physics 10 or 11 } or Chemistry 10, 12 or 11,13 }	3	Physics 20 or 21 } or Chemistry 20,22 or 21,23 }	3
Elective.....	3	Elective.....	3
*Military Science 10.....	1	*Military Science.....	1
<hr/>		<hr/>	
17		17	

Students who present for admission equivalents for prescribed courses in the departments of French, German, or Spanish may substitute for those prescribed courses equal credits from the list of freshman electives given below, subject to examination for such advanced credit at the option of the departments concerned.

*Students physically disqualified for drill may be assigned to Physical Training 10-20.

List of Freshman Electives, Sections A and B

Greek 10, 20, 11, 21	Mathematics 11, 21
Latin 10, 20	Chemistry 10, 12, 20, 22, or 11, 13, 21, 23
French 10, 20, 11, 21, 12, 22	Physics 10, 20, 11, 21
German 10, 20, 11, 21, 12, 22	Biology 10, 20
Spanish 10, 20, 11, 21, 12, 22	Geology 10, 20
History 30, 40	

*Section C—Medical Preparatory Course**First Term*

English 10.....	3
Modern Language.....	3
Mathematics 10 or 11.....	3
Chemistry 10, 14 or 11, 15..	4
Biology 11.....	4
Public Speaking 12.....	1
*Military Training 10.....	1

19

Second Term

English 20.....	3
Modern Language.....	3
Mathematics 20 or 21.....	3
Chemistry 20, 24 or 21, 25 .	4
Biology 21.....	4
Public Speaking 22.....	1
*Military Training 20.....	1

19

*Freshman Year: February-September Division**Section A*

<i>February-June</i>	<i>Credits</i>	<i>June-September</i>	<i>Credits</i>
Latin 10.....	3	Latin 20.....	3
English 10.....	3	English 20.....	3
Mathematics 10 or 11.....	3	Mathematics 20 or 21.....	3
Other Language.....	3	Other Language.....	3
Public Speaking 10.....	1		
*Military Training 10.....	1		

And 3 additional credits the first term and 3 credits the second term from the list of electives given above.

Section B

English 10.....	3	English 20.....	3
Modern Language.....	3	Modern Language.....	3
Mathematics 11.....	3	Mathematics 21.....	3
Public Speaking 10.....	1		
*Military Training 10.....	1		

And 6 additional credits the first term and 6 the second term from the list of electives given above.

*Students physically disqualified for drill may be assigned to Physical Training 10-20.

Latin 10.....	3	Latin 20.....	3
French 10, 11, 12.....	3	French 20, 21, 22.....	3
German 10, 11, 12.....	3	German 20, 21, 22.....	3
Spanish 10, 11, 12.....	3	Spanish 20, 21, 22.....	3
Mathematics 11.....	3	Mathematics 21.....	3
Chemistry 10, 12.....	3	Chemistry 20, 22.....	3
History 30.....	3	History 40.....	3
Physics 10 or 11.....	3	Physics 20 or 21.....	3

Section C—Medical Preparatory Course

February-June		June-September	
English 10.....	3	English 20.....	3
Modern Language.....	3	Modern Language.....	3
Mathematics 10 and 11.....	3	Mathematics 20 or 21.....	3
Chemistry 11, 14 or 15.....	4	Chemistry 21, 24 or 25.....	4
Biology 11.....	4	Biology 21.....	4
*Military Training 10.....	1	Public Speaking 22.....	1
Public Speaking 11.....	1		
	<hr/> 19		<hr/> 18

Sophomore Year

Sections A and B

(Prescribed subjects must be completed by the end of the sophomore year, with the exception that 6 credits in philosophy may be deferred to the junior year.)

*Military Training 30, 40=2 credits.

At least 15 credits each term from the list of sophomore subjects given below.:

Greek 11, 21, 30, 40	Music 30, 40
Latin 10, 20, 30, 40	Philosophy 30, 40
English 31, 41, 32, 42, 34, 44	History 30, 31, 40, 50, 51, 60, 61
Public Speaking 30, 40	Economics 30, 40
French 10, 20, 11, 21, 12, 22, 30, 40, 32, 42	Mathematics 11, 21, 30, 40
German 10, 20, 11, 21, 12, 22, 30, 40	Chemistry 10, 12, 11, 13, 20, 22, 21, 23, 16, 26
Spanish 10, 20, 11, 21, 12, 22, 30, 40	Physics 10, 20, 11, 21
Italian 10, 20	Biology 10, 20, 31, 41
	Geology 10, 20, 30, 40

*Students physically disqualified for drill may be assigned to Physical Training 10-20.

Section C—Medical Preparatory Course

<i>First Term</i>	<i>Credits</i>	<i>Second Term</i>	<i>Credits</i>
English 32.....	3	English 42.....	3
Modern Language.....	3	Modern Language.....	3
History 30.....	3	History 40.....	3
Chemistry 31.....	3	Chemistry 41.....	3
Biology 31.....	3	Biology 41.....	3
Physics 31.....	4	Physics 41.....	4
*Military Science 30.....	1	*Military Science 40.....	1
	<hr/> 20		<hr/> 20

Junior and Senior Years

The requirements of the junior and senior years are the completion of one major and two minors, a graduation thesis and the election from subjects not already taken and credited of a sufficient number of credits to bring the number of credits each term to a total of 15.

Juniors and seniors serving as cadet-commissioned officers, will take Military Science 50-60 or 70-80 as free electives. The credit per term will be three points or less, according to the amount of work elected.

*Students physically disqualified for drill may be assigned to Physical Training 30-40.

SIX YEAR COLLEGE AND MEDICAL COURSE

The faculty of the University and Bellevue Hospital Medical College may recommend students for the degree of bachelor of science in medicine who complete two years of medical preparatory work in the College of Arts and Pure Science and who subsequently complete the first two years of the Medical College and at the end of six years may recommend such students for the degree of doctor of medicine.

FOUR YEAR COLLEGE COMMERCE COURSE

Students entering the freshman class of the college may elect a full four year curriculum in commerce leading to the degree of bachelor of science in commerce.

The requirements for admission are the same as for section A or B of the freshman class.

Freshman Year

The work of the freshman year will be identical with that of section A or B.

Sophomore Year

<i>First Term</i>	<i>Credits</i>	<i>Second Term</i>	<i>Credits</i>
Econ. 30 Principles of Economics	3	Econ. 40 Principles of Economics	3
Econ. 31 Money and Banking	3	Econ. 41 Money and Banking	3
Engl. 30 Business English . . .	2	Engl. 40 Business English . . .	2
Pol. Sci. 50 American Government	3	Com. 41 Bookkeeping	2

And sufficient credits from the list of electives open to college sophomores to bring the total number of credits up to not less than 16 and not more than 18 per term.

The following non-technical prescribed credits must be completed by the end of the sophomore year:

English 10-20, 6 credits; German or French or Spanish 11, 21 or 12, 22 and 30, 40, 12 credits; mathematics 10, 20, or 11, 21, 6 credits; history 30, 40, 6 credits; physics 10, 20 or 11, 21 or chemistry 10, 20, 12, 22 or 11, 21, 13, 23, 6 credits; public speaking 10, 20, 2 credits; and military training or physical training 10-20, 30-40, 4 credits. The following must be completed by the end of the junior year: Philosophy 30, 40, 6 credits. Total, 48 credits.

Junior Year

<i>First Term</i>	<i>Credits</i>	<i>Second Term</i>	<i>Credits</i>
Com. 50 Business Organization.....	2	Com. 60 Business Organization.....	2
Com. 51 Accounting.....	2	Com. 61 Accounting.....	2
Econ. 51 Trust Problems....	3	Com. 63 Corporation Finance	3
Geol. 33 Econ. Geography...	3	Geol. 43 Econ. Geography...	3
Com. 54 Business Law.....	3	Hist. 66 Econ. History.....	3

And sufficient credits from the list of electives open to college juniors to bring the total number of credits up to not less than 15 and not more than 18 per term.

Senior Year

<i>First Term</i>	<i>Credits</i>	<i>Second Term</i>	<i>Credits</i>
Com. 70 Cost Accounting...	2	Econ. 82 Federal Reserve Banking System.....	3
Econ. 70 Transportation....	3	Econ. 80 Foreign Trade.....	3
P. S. 71 Public Address.....	1	Soc. 80 Labor Problems.....	2
Econ. 72 Value, Price, and Distribution.....	2	P. S. 81 Public Address.....	1

And sufficient credits from the list of electives open to college seniors to bring the total number of credits up to not less than 15 nor more than 18 per term.

In addition, each senior is required, at the beginning of the senior year, to select a subject for a thesis approved by the head of the commerce department.

Upon the completion of 126 credits and the submission of an accepted thesis, a student will be recommended for the degree of bachelor of science in commerce.

FOUR YEAR COLLEGE CHEMISTRY COURSE

Students entering the freshman class of the college may elect a full four year curriculum in chemistry which leads to the degree of bachelor of science in chemistry.

The requirements for admission are the same as for section A or B of the freshman class.

Freshman Year

<i>First Term</i>	<i>Credits</i>	<i>Second Term</i>	<i>Credits</i>
English 10.....	3	English 20.....	3
Mathematics 11.....	3	Mathematics 21.....	3
German 10.....	3	German 20.....	3
Chemistry 11 and 13.....	3	Chemistry 21 and 23.....	3
Chemistry 16.....	3	Chemistry 26.....	3
Public Speaking 10.....	1	Public Speaking 20.....	1
Military Training 10.....	1	Military Training 20.....	1
	<hr/> 17		<hr/> 17

Students entering without high school chemistry will elect, instead of the chemistry courses given above, Chemistry 10-20 and Chemistry 17-27.

Students who present German for admission may, upon the successful completion of an examination conducted by the department of German, elect another modern foreign language.

Sophomore Year

<i>First Term</i>	<i>Credits</i>	<i>Second Term</i>	<i>Credits</i>
Chemistry 30.....	2	Chemistry 40.....	2
Chemistry 31.....	3	Chemistry 41.....	3
Mathematics 30.....	3	Mathematics 40.....	3
History 30.....	3	History 40.....	3
German 11.....	3	German 21.....	3
Physics 11.....	3	Physics 21.....	3
Military Training 30.....	1	Military Training 40.....	1
	<hr/> 19		<hr/> 18

Junior Year

<i>First Term</i>	<i>Credits</i>	<i>Second Term</i>	<i>Credits</i>
Chemistry 52.....	3	Chemistry 62.....	3
Chemistry 71.....	3	Chemistry 81.....	3
Physics 50.....	3	Physics 60.....	3
Economics 30 or }.....	3	Economics 40 or }.....	3
Philosophy 30 }		Philosophy 40.. }	
Elective.....	3	Elective.....	3
	<hr/> 15		<hr/> 15

Senior Year

<i>First Term</i>	<i>Credits</i>	<i>Second Term</i>	<i>Credits</i>
Chemistry 72.....	3	Chemistry 82.....	3
Chemistry 74.....	3	Chemistry 84.....	3
Political Science 50.....	3	American History.....	3
Bacteriology.....	2	Mineralogy.....	3
Elective.....	3	Elective.....	3
Elective.....	3	Elective.....	3
	<hr/>		<hr/>
	17		18

For graduation in the college course in chemistry, the completion of the above curriculum, which shall include a minor not in the group of exact and natural sciences, will be required.

DESCRIPTION OF COURSES

Courses enclosed in brackets will not be given during 1921-1922.

ASTRONOMY

[50. Descriptive Astronomy. Professor Edmondson. First term
3 credits.]

[60. Descriptive Astronomy. Professor Edmondson. Second
term, 3 credits.]

BIOLOGY

Major: Biology 10-20, 31-41, and one of the following: 32-42, 51-61, 53-63, or 54-64.

Minor: Biology 10-20, and one of the following: 31-41, 32-42, 51-61 or 54-64.

10-20. General Biology. (For college students.) An elementary course in which biological principles are presented as illustrated by the study of selected plants and animals. Emphasis will be laid on structure, function, and relations of living forms. In the laboratory, animal types will be studied. Professor Bristol and Mr. Tuers.

First and second terms

3 credits each term

11-21. General Biology. (For first year medical preparatory students.) An elementary course in which the general principles underlying the structures and functions of living things are presented by means of lectures, laboratory exercises, and quizzes. In the laboratory, selected types of invertebrate animals are studied, and these forms are chosen with regard to further work in the medical college. Assistant Professor Stunkard and Mr. Wheat.

First and second terms

4 credits each term

31-41. Comparative Anatomy. (For college and medical preparatory students.) Prerequisite: Biology 11-21 or 10-20. An elementary course in vertebrate architecture together with further consideration of general biological principles. The dogfish, the frog, and the cat are studied carefully in the laboratory from the standpoint of development. Professor Bristol, Messrs. Blizzard and Tuers.

First and second terms

3 credits each term

32. Histological Technique. Prerequisite: Biology 11-21 or 10-20.

The course is designed to give to the student who is going on with his work in biology either in the college or in the medical college, the training which will enable him to prepare material for microscopic study. It is wholly a technical course and is not designed to teach histology or embryology. Mr. Blizzard.

First term

2 credits

42. Cytology. (For advanced college students.) An advanced course in the morphology and physiology of the cell. Emphasis will be laid on the application of physico-chemical methods in the study of cellular phenomena and the consideration of the process of life, growth, development, and specialization of the cell. Assistant Professor Stunkard.

Second term

3 credits

51-61. Organic Evolution. (For college students.) An introduction to the subject. No previous training in biology is required. The course is intended to supply to juniors and seniors a knowledge of the factors and principles involved in the attempt to explain the wide variety of form in living things and their relations to one another. Professor Bristol.

First and second terms

2 credits each term

53-63. Histology and Embryology. A minute study of the animal tissues will be made in the first term. In the second term, the development of the vertebrates will be studied as illustrated by the frog, the chick, and the pig. Mr. Blizzard.

First and second terms

3 credits each term

54-64. Economic Zoölogy. (For college students.) Prerequisite: Biology 10-20 or 11-21. This course is prompted by the increasing importance of scientific knowledge of the relations of animal and plant life to the economic life of human society. The laboratory work will be directed to those phenomena of life that are of most importance to human society. Professor Bristol and assistant.

First and second terms

3 credits each term

65. Advanced Comparative Anatomy. (For advanced college students). An advanced course in which discussion of physiology and evolution will be included with the study of the morphology of the master systems of organs. Professor Bristol and assistant.

Second term

3 credits

101-102. Animal Parasites and Parasitic Diseases. (For advanced college and graduate students). An advanced course in which the following subjects will be treated: Origin and biological significance of parasitism; life history of parasites; effect on host and relation to disease; protozoa and the diseases transmitted by insects; helminthology, including the study of trematode, cestode, and parasitic nematode forms. Assistant Professor Stunkard.

First and second terms

3 credits each term

103-104. History and Principles of Biology. (For college and graduate students). Lectures on the rise and development of the sciences of life, with especial reference to certain epochs and to the works of some of the great leaders. Professor Bristol.

First and second terms

2 credits each term

105-106. Journal Club and Conferences. Weekly meetings throughout the year in which current periodical literature and reviews of new books are discussed by the staff and the students.

CHEMISTRY

Major: 16-26; (31-41, 32-42) 30-40; 30-40 or 52-62.

Minor: 16-26; (31-41, 32-42) or 30-40.

10-20. Introductory General Chemistry. Introductory course in inorganic chemistry. For students not previously prepared in chemistry. To be accompanied by Chemistry 12-22 or 14-24. Two lectures and one quiz hour weekly. Professor Hill and assistants.

First and second terms

2 credits each term

11-21. General Chemistry. Prerequisite: High school chemistry. A study of the facts and theories of general chemistry, to be accompanied by Chemistry 13-23 or 15-25. Two lectures and one quiz hour weekly. Professor Hill, Associate Professor Simmons and assistants.

First and second terms

2 credits each term

12-22. Experimental Chemistry. Elementary laboratory experimentation, for college freshmen primarily, to accompany Chemistry 10-20, without which it may not be taken. Two laboratory hours weekly. Mr. Smith and assistants.

First and second terms

1 credit each term

13-23. Advanced Experimental Chemistry. Laboratory exercises on selected topics, to accompany Chemistry 11-21 for college students. Two laboratory hours weekly. Mr. Smith and assistants.

First and second terms

1 credit each term

14. Experimental Chemistry. Elementary laboratory experimentation, for medical preparatory, civil engineering, and mechanical engineering freshmen taking Chemistry 10. Four laboratory hours weekly. Mr. Wagner and assistants.

First term

2 credits

24. Introductory Qualitative Analysis. A short course in qualitative analysis, for medical preparatory, civil engineering, and mechanical engineering freshmen taking Chemistry 20. One demonstration and three laboratory hours weekly. Mr. Wagner and assistants.

Second term

2 credits

15-25. Qualitative Analysis. A course in systematic qualitative analysis, for medical preparatory, civil engineering, and mechanical engineering freshmen taking Chemistry 11-21. Three laboratory hours weekly and one demonstration hour. Mr. Smith, Mr. Phelps, and assistants.

First and second terms

2 credits each term

16-26. Qualitative Analysis. A complete course in systematic qualitative analysis, including study of the acid radicals, dry analysis, and spectroscopic analysis for chemical engineering freshmen and for college sophomores electing a major series in chemistry. Seven laboratory hours and one demonstration hour weekly. Mr. Phelps and assistants.

First and second terms

3 credits each term

17-27. General Chemistry and Qualitative Analysis. Laboratory course for freshmen in the college chemistry course, who do not present high school chemistry for admission. Ten laboratory hours weekly. Mr. Phelps.

First and second terms

4 credits each term

30-40. Quantitative Analysis. Prerequisite: Chemistry 26. Introductory laboratory course in volumetric and gravimetric analysis, with weekly conference. Laboratory 7 hours, quiz 1 hour. Associate Professor Simmons.

First and second terms

3 credits each term

31-41. Organic Chemistry. Prerequisite: Chemistry 26. Study of the aliphatic and aromatic series of carbon compounds and of the nitrogen bases. Two lectures, one quiz hour, and two hours laboratory weekly. Associate Professor Renshaw.

First and second terms

2 credits each term

50-60. Technical Quantitative Analysis. Prerequisite: Chemistry 30-40. First term, technical examination and analysis of coal, steel, and non-ferrous alloys. Second term, analysis of lubricating oils, minerals, boiler water, and potable waters. Laboratory, 6 hours. Mr. Wagner.

First and second terms

3 credits each term

55-62. Physical Chemistry. Prerequisites: Chemistry 41; Physics 10-20; Mathematics 30-40. Lectures on theoretical chemistry, three hours weekly. Assistant Professor Rice.

First and second terms

3 credits each term

63. Organic Synthesis. Prerequisite: Chemistry 41. Preparation of organic compounds and study of type reactions. Laboratory, 8 hours. Associate Professor Renshaw.

Second term

3 credits

70-80. Technical Quantitative Analysis. Prerequisite: Chemistry 31-41, 50-60. First term, analysis of milk, saponifiable oils, butter, carbohydrates, foods, etc. Second term, gas analysis and ultimate analysis of organic compounds. Laboratory, 6 hours. Assistant Professor Masson.

First and second terms

3 credits each term

71. Physical Chemical Experimentation. Laboratory exercises on the methods of physical chemistry. Laboratory, 8 hours. Assistant Professor Rice.

First term

3 credits

72-82. Chemical Research. Laboratory work in connection with thesis for chemical engineering seniors and college seniors taking a major series in chemistry. Laboratory, 9 hours, conference 1 hour. Students are assigned to individual members of the departmental faculty.

First and second terms

4 credits

73-83. Industrial Chemistry. Prerequisite: Chemistry 30-40 and 31-41. Lectures on application of chemistry in the industries, with visits to industrial plants. Lectures, 3 hours, with visits to factories. Assistant Professor Masson.

First term

3 credits

COMMERCE

In addition to pursuing the following courses, students in the commerce group will be required to make collective and individual visits to business establishments in Greater New York and report thereon. The formal courses are to be supplemented by extensive use of the commercial laboratory which New York presents.

Economics 30-40 is a natural prerequisite to all other courses in the commerce group. These courses will admit the student into any of the advanced courses except Commerce 51-61, which must be preceded also by Commerce 41, and Commerce 70 which must be preceded also by Commerce 51-61.

By special permission, advanced courses offered in the second term, may be elected simultaneously with Economics 40.

41. Bookkeeping. Designed to prepare students for accounting (Course 51-61). Practice in single and double entry, opening and closing the books, posting, taking off trial balances, and preparing simple financial statements. Professor Rosenkampff.

Second term

2 credits

50-60. Business Organization and Management. (Commerce 50 must precede Commerce 60.) This course presents the fundamental principles and practice of organization and management, the industrial and financial features of organization, evolution of industry, and changes leading to modern management methods. Mr. Edgar.

First and second terms

2 credits each term

51-61. Accounting Principles and Practice. Professor Rosenkampff.

First and second terms

2 credits each term

54. Business Law. The following subjects are treated: Law in general, contracts, agency, law of bailments, common carriers, partnerships, corporations, negotiable instruments, wills and the administration of estates, law of bankruptcy. Professor Hathaway.

First term

3 credits

63. Corporation Finance. A study of the financial basis and operations of the business corporation. The topics to be discussed will include: Structure and organization of corporate enterprises; capital, its sources and uses; promotion and underwriting; financial management; disposition of income; insolvency and receivership; problems of reorganization. Mr. Hart.

Second term

3 credits

70. Cost Accounting. Professor Rosenkampff.

First term

2 credits

ECONOMICS

Major: Economics 30-40 and 12 others approved credits from economics or commerce courses

Minor: Economics 30-40 and 6 other approved credits from economics or commerce courses

30-40. Principles of Economics. An introduction to economics dealing with: Growth of economic institutions, principles of value and price, organization of production, elements of distribution. The second term will be devoted to an examination of the practical problems of economics. Mr. Hart.

First and second terms

3 credits each term

31. Principles of Banking. A study of the principles and practice of commercial banking, the central banks of Europe, the development of the Federal reserve system; the money market and current financial problems. Assistant Professor Dye.

First term

3 credits

41. Money and Currency. A study of the principles governing the mechanism of exchange; how the price level is determined, the effects of a changing price level on industry; foreign and domestic exchange; the monetary history of the United States. Assistant Professor Dye.

Second term

3 credits

51. The Trust Problem. A survey of the field of business monopoly. Its historic development; economic aspects; structure and methods of trust organizations; regulation and investigation. Readings in government reports and other trust literature supplement class work. Mr. Hart.

First term

3 credits

70. Railroad Transportation. A systematic study of modern railroad transportation with particular reference to the United States; growth of the American system; organization and operation; economics of rates and fares; public regulation and control; railroad problems; recent development. Mr. Hart.

First term

3 credits

80. Foreign Trade and Shipping. An analysis of the principles and practical problems of international commerce. America's position in world trade will be examined in the light of economic resources, banking, commercial and shipping organization. Post war conditions and the nature and extent of government aid will be observed. Mr. Hart.

Second term

3 credits

72. Value, Price, and Distribution. A more intensive study of the central problems of economic theory. Assistant Professor Dye.

First term

3 credits

82. The Federal Reserve Banking System. The history of the rise and development of the Federal reserve system and its present day organization and operation. Assistant Professor Dye.

Second term

3 credits

NOTE: Offered in 1921-1922 and alternate years thereafter.

[**83. Public Finance.** To be given in 1923 and alternate years thereafter.]

ENGLISH

English 10 and 20, are required of all students, and are prerequisite to subsequent work in English. They will not be credited toward majors or minors. Students electing a major or a minor in English will plan their work in consultation with the head of the department. A major will consist of English 31 and 41, together with twelve additional credits; a minor, of English 31 and 41, together with six additional credits. In general, students making free elections from courses subsequent to the freshman year should begin with the election of English 31 and 41. A minor is now offered in public speaking and the election of work in public speaking is strongly urged upon all students.

10-20. Rhetoric and Composition. Theme writing based upon a study of the principles of composition. *Required of all freshmen.* Associate Professor Allen, Assistant Professor Rollins, Mr. Mindil, Dr. Borgman, Mr. Wood and Mr. Gibbs.

First and second terms 3 credits each term

30-40. Business English. Drill in the adaption of correct English to various business forms. Mr. Wood.

First and second terms 2 credits each term

31-41. History of English Literature. A view of the progress of English literature from the Old English period to the close of the eighteenth century, with a presentation of its chief facts in their relation to social and literary tendency. Dr. Borgman.

First and second terms 3 credits each term

[32-42. English Essayists of the Nineteenth Century. First and second terms. 2 credits each term.]

33-43. National Ideals in British and American Literature. A survey of English and American literature with reference to the growth and expression of national ideals of freedom, faith, and conduct. Professor Bouton and Assistant Professor Rollins.

First and second terms 3 credits each term

34-44. English Poetry of the Nineteenth Century. A study of the chief poets from Wordsworth and Coleridge to Swinburne. Assistant Professor Rollins.

First and second terms 3 credits each term

50-60. American Literature. The development of American literature and its relations to British and continental literature. The writers of the colonial and revolutionary periods, and Irving, Bryant, Cooper, Poe, Emerson, Whittier, Longfellow, Lowell, Holmes, Hawthorne, Whitman, and Lanier. Professor Nason.

First and second terms 3 credits each term

51. English Drama. Origin and history of the drama in England until 1590. The miracle play, the morality, the interlude, the chronicle play, the work of the early Elizabethans. Associate Professor Allen.

First term 3 credits

61. **Shakespeare.** A detailed study of some of the plays of Shakespeare with an incidental survey of English drama until the closing of the theatres in 1642. Associate Professor Allen.

Second term *3 credits*

[70-80. **Literary History of the Eighteenth Century.** Associate Professor Allen. First and second terms. 3 credits each term.]

[71-81. **The Contemporary Drama.** Associate Professor Allen. First and second terms. 3 credits each term.]

FRENCH

Major: French 30-40, 50-60, 70-80

Minor: French 30-40, 50-60

10-20. **Elementary French.** Pronunciation, dictation, syntax, exercises, reading in elementary French reader; translation of story or play. Assistant Professor Vaeth.

First and second terms *3 credits each term*

11-21. **Grammar and Translation.** Prerequisite: French 10-20. Advanced syntax, composition (Fraser and Squair's *French Grammar*, Part II); selected readings from modern authors. Assistant Professors Vaeth and Olinger.

First and second terms *3 credits each term*

NOTE: Course 11-21 is designed for students presenting elementary French, based on two years of high school preparation, at entrance.

12-22. **Review of Grammar and Translation.** Prerequisites: See note below. Study of advanced syntax and idioms (Chardenal's *Advanced French Exercises*); selected readings in prose, poetry and drama. Assistant Professors Vaeth and Olinger.

First and second terms *3 credits each term*

NOTE: Course 12-22 is designed for students presenting intermediate French, based on three years of high school preparation, at entrance.

30-40. **Reading and Composition.** Prerequisites: French 10-20, 11-21. Reading from modern standard French authors; advanced composition; oral practice. Professor Babcock and Assistant Professor Olinger.

First and second terms *3 credits each term*

32-42. Advanced Reading and Composition. Prerequisites: French 10-20, 12-22. Rapid reading of modern and classical French authors; advanced composition; oral practice. Assistant Professor Olinger.

First and second terms

3 credits each term

50-60. Introduction to French Literature. Prerequisites: French 30-40 or 32-42. Study and discussion of the more important periods of French literature. This course will be conducted, as far as possible in French. Assistant Professor Olinger.

First and second terms

3 credits each term

70. French Literature of the Seventeenth Century. Prerequisites: French 30-40 or 32-42, 50-60. Survey of the French classical period. Conducted in French. Professor Babcock.

First term

3 credits

80. French Literature of the Nineteenth Century. Prerequisites: French 50-60, 70. After a brief review of the leading authors of the eighteenth century, the chief literary movements of the nineteenth century will be studied. This course will be conducted in French. Professor Babcock.

Second term

3 credits

GEOLOGY

Major: Six term courses, including 71-81

Minor: Four term courses

NOTE: Either courses 10-20, 31-41, or 33-43 may be taken to satisfy the requirement in natural science, except that freshmen may elect only 10-20.

10-20. General Geology. An elementary study of the origin of the earth, the internal and external agents that alter it, with special reference to the development of surface forms; the chief igneous, sedimentary, and metamorphic rocks and structures. The second term includes methods of fossilization, the geological effects of life, and an outline of geological history. Lectures, two hours; field (September-November, April-May), one-half day. Laboratory (November-March), two hours.

First and second terms

3 credits each term

30. **Advanced Inorganic Geology.** Prerequisite: Geology 10-20. The lectures treat first of the series of sedimentary rocks comprising four-fifths of the land surface, with an account of their manner of deposition and later disturbance by folding, faulting, and mountain building. This is followed by a consideration of the igneous and metamorphic rocks, their history and structures. The remainder of the course is concerned with the origin of the earth as a whole, its atmosphere and oceans, and the continental land masses. Lecturers, three hours.

First term

3 credits

40. **Historical Geology.** Prerequisite: Geology 30. The physical history of the different eras is studied in some detail, and the development of plants and animals in outline. North America receives especial attention. Lectures, three hours. Textbook: *Textbook of Geology, Vol. II*, Pirrson and Schuchert.

Second term

3 credits

31-41. **Military Geology and Geography.** This course is designed for those who are or who aim to become candidates for commissions in the Officers' Reserve Corps of the United States Army. For them it may be credited as their natural science course, and it may be followed by any advanced course if desired. It includes the fundamentals of geology and physiography, and the applications of these to military science. Lectures, two hours; field (September-November, April-May), one-half day; laboratory (November-March), two hours. Professor Woodman.

First and second terms

3 credits each term

33. **Principles of Economic Geography.** The general theme of courses 33 and 43 is the dependence of mankind upon the earth's history, and the physiographic features upon which that dependence rests. The subject matter includes: Location, topography, climate; earth resources; reactions between man and his environment. Lectures, two hours; laboratory, two hours. Professor Woodman.

First term

3 credits

43. **Industrial and Commercial Geography.** Direct application of the underlying principles of the first course is made as follows, with especial reference to various countries.

Industries, power development, manufacturing, expansion of resources and industries. Commerce—laws of trade; transportation, trade routes, trade centers; geographic influences upon the commercial policies of nations. Lectures, two hours; laboratory, two hours. Professor Woodman.

Second term

3 credits

51. Mineralogy. Prerequisite: first year geology. This course covers crystallography, and optical and physical mineralogy. The laboratory work is conducted by means of transparent and wooden models, natural crystals and microscopic sections. Open to students who have had one year of chemistry in high school or college. Lectures, two hours; laboratory, two hours.

First term

3 credits

61. Determinative and Economic Mineralogy. Prerequisite: Geology 51. Specific determination, by blowpipe and physical methods, of the important mineral species; and the nature of their occurrence, with especial reference to the geology of the economic varieties. Lectures, two hours; laboratory, two hours.

Second term

3 credits

71-81. Seminar. Prerequisite: at least two full year courses. In this course the work consists of individual studies by each member, the progress and results of which are reported at the stated meetings of the course. The problems may require field, laboratory, or library work, according to their nature. Professor Woodman.

First and second terms

3 credits each term

GERMAN

Major: German 30, 40, 50, 60, or 53-63, 71-81, or 72-82, or 73 and 83

Minor: German 30, 40, 50, 60, or 53-63

10-20. Elementary Course. The elements of grammar, with simple graded reading and some practice in writing easy sentences in German. Professor McLouth and Mr. Brennecke.

First and second terms

3 credits each term

11. Narrative Prose. Prerequisite: two years of German or equivalent. Narrative prose, word formation, syntax, idioms, and the translation of easy English prose into German. Mr. Brennecke.

First term

3 credits

21. German Novel. Prerequisite: 11 or equivalent. Representative German novels, discussions of some problems of literary structure, the more difficult idioms and points of syntax, and the writing of simple themes in German. Lectures on the history of German literature. Mr. Brennecke.

Second term

3 credits

NOTE: Courses 11 and 21 are designed for students presenting elementary German at entrance.

12. Historical Prose. Prerequisite: three years of German or equivalent. Graded historical prose, word formation and syntax, sight reading, and the translation of English prose into German. Lectures on German literature and history. Mr. Brennecke.

First term

3 credits

22. German Classical Drama. Prerequisite: German 12 or equivalent. The classical dramas of Lessing, Goethe, and Schiller. Lectures on the history of German literature. Mr. Brennecke.

Second term

3 credits

NOTE: Courses 12 and 22 are designed for students presenting intermediate German at entrance.

30. Modern German Epics. Prerequisite: German 21 or equivalent. Goethe's *Hermann und Dorothea*, selections from Voss's *Luise* and Wieland's *Oberon*, and Scheffel's *Der Trompeter von Säckingen*. Lectures on the history of German literature. Two sections. Professor McLouth.

First term

3 credits

40. German Drama of the Nineteenth Century. Prerequisite: German 30, or equivalent. Grillparzer's *Sappho* and *Der Traum ein Leben*, Hebbel's *Judith* and *Die Nibelungen*, and Richard Wagner's *Tannhäuser* and *Die Meistersinger*, and the writing of themes. Lectures on the history of German literature. Two sections. Professor McLouth and Mr. Brennecke.

Second term

3 credits

50. German Lyric Poetry. Prerequisite: German 40 or equivalent. Selections from the most famous lyric poets of Germany from the Reformation to the present, including the *Volkslied*. Lectures on the history of German literature. Professor McLouth.

First term

3 credits

60. "Storm and Stress" Period of German Literature. Prerequisite: Course 40 or equivalent. Goethe's *Götz von Berlichingen* and *Werther*, Klinger's *Sturm und Drang* and Schiller's *Kabale und Liebe*. The writing of themes. Lectures on the history of German literature. Professor McLouth.

Second term

3 credits

[53-63. German Prose Style. Professor Wilkens. 3 credits each term.]

[71-81. Goethe's *Faust*. Professor Wilkens. 3 credits each term.]

[73. Modern German Drama Since 1889. Prerequisites: German 50 and 60 or equivalent. Professor McLouth. First term, 3 credits.]

[83. Modern German Drama since 1889. Professor McLouth. Second term, 3 credits.]

GREEK

Major: 30, 40, 50, 60, 70, 80

Minor: 11, 22, 30, 40

10-20. Elementary Greek. Declensions, conjugations, syntax, exercises in translation, Xenophon's *Anabasis*. Professor Waters.

First and second terms

3 credits each term

11. The *Iliad* of Homer. three books. Prerequisite: Greek 10, 20, or their equivalent. Students who attain a high grade in the work of this course may be admitted to course 22. Professor Waters.

First term

3 credits

12. Greek History and Oratory. Prerequisite: fulfillment of entrance requirement. Selected portions of Xenophon's *Hellenica* and of the *Orations* of Lysias are read. Lectures and readings are given on topics suggested by the course. Professor Waters.

First term

3 credits

22. Plato and Greek Philosophy. Prerequisite: Greek 11 (See also the statement under course 11). In addition to the study of the *Apology* and the *Crito*, typical parts of other *Dialogues* are read in translation, and a general survey of Greek philosophy is given. Professor Waters.

Second term

3 credits

30. Greek Drama: Aeschylus and Sophocles. Prerequisite: Greek 22. Two plays are translated. Emphasis is given to the history and influence of the Greek drama. Professor Waters.

First term

3 credits

40. Euripides and Aristophanes. Prerequisite: Greek 30. This course continues the preceding, and studies particularly the relations of the two dramatists to each other and to their times. Professor Waters.

Second term

3 credits

50. Epic Literature: Homer. Prerequisite: Greek 30, 40. Selected parts of the Iliad. Professor Waters.

First term

3 credits

60. The Epic, (continued): Homer and Herodotus. Prerequisite: Greek 50. Selected parts of the *Odyssey*, of Hesiod and the History of Herodotus. Professor Waters.

Second term

3 credits

51. Greek Classics in English. Professor Waters. First term, 2 credits.

61. Greek Classics in English. Second term, 2 credits.

[70. Demosthenes, Theocritus, Lucian. Prerequisite: Greek 30, 40. Professor Waters. First term, 3 credits.]

[80. Thucydides, and Historical Inscriptions. Prerequisite: Greek 70. Professor Waters. Second term, 3 credits.]

NOTE: Greek 50, 60 and 70, 80 are given in alternate years. Greek 50-60 will be given in 1921-1922.

[71. Modern Greek. Professor Waters. First term, 2 credits.]

[81. Greek Archeology. Professor Waters. Second term, 2 credits.]

NOTE: Greek 51, 61 and 71, 81 are given in alternate years. Greek 51, 61 will be given in 1921-1922.

HISTORY

Major: History 30, 40, 51-61 or 50-60, and six additional hours from the following courses: 50-60, 51-61, 52-62, 70-80.

Minor: History 30, 40 and 50-60 or 51-61

30. Medieval History. Europe from the fall of the Roman empire to the reformation. Associate Professor Jones, Assistant Professors Musser and Wendel, and Dr. Park.

First term

3 credits

40. Modern History. Prerequisite: History 30. Europe from the reformation to the present time. Associate Professor Jones, Assistant Professors Musser and Wendel, and Dr. Park.

Second term

3 credits

[31. History of the Roman Republic. First term, three credits.]

32. An Outline of Roman Law, as presented in Justinian and Gaius. Professor Sihler.

First term

3 credits

[50-60. Political and Constitutional History of England. Prerequisite: History 30-40.]

51-61. Political and Constitutional History of the United States. Professor Brown.

First and second terms

3 credits each term

NOTE: History 50-60 and 51-61 are given in alternate years: History 51-61 will be given in 1921-1922.

52-62. Europe since 1815. Prerequisites: History 30, 40. Associate Professor Jones.

First and second terms

3 credits each term

53-63. History of the Christian Church. Dr. Wendel.

First and second terms

3 credits each term

56. Economic History of Europe. Prerequisite: History 30, 40. Dr. Park.

First term

3 credits

66. Economic History of the United States. Prerequisite: History 30, 40. Assistant Professor Wendel.

Second term

3 credits

70-80. History of the French Revolution and Napoleonic Period. Prerequisite: History 30, 40. Associate Professor Jones.

First and second terms

3 credits

ITALIAN

10-20. Elementary Italian. Pronunciation; the essentials of grammar and the reading of simple prose. Grandgent's *Italian Grammar*, Marinoni's *Italian Reader*. Professor Babcock.

First and second terms

3 credits each term

LATIN

Major: Latin 30, 40, 50, 60, 70, 80

Minor: Latin 10, 20, 30, 40

10. Cicero, Second or Fifth Philippic. Syllabus of the more idiomatic points of Latin syntax. Practice in writing Latin. Professor Sihler.

First term

3 credits

20. Livy; Horace, Odes. Prerequisite: Latin 10. Translation at sight from English into Latin. Practice in writing and speaking Latin. Professor Sihler.

Second term

3 credits

30. Pliny, Letters; Terence, one or two plays; Cicero, de Officiis. Prerequisite: Latin 20. Practice in speaking and writing Latin. Professor Sihler.

First term

3 credits

40. Horace, Satires; Juvenal or Persius, selections; Tacitus. Prerequisite: Latin 30. Lectures: practice in speaking and writing Latin. Professor Sihler.

Second term

3 credits

50. Cicero, De Finibus; Tacitus Annals, or Quintilian, Book X. Prerequisite: Latin 40. Professor Sihler. First term, 3 credits.

60. Horace, Epistles; or a Play of Plautus. Prerequisite: Latin 50. Professor Sihler. Second term, 3 credits.

[70. Justinian, or Cicero, de Oratore. Professor Sihler.]

First term

3 credits

[80. Suetonius or Seneca; Velleius. Professor Sihler.]

Second term

3 credits

NOTE: Latin 50, 60 and 70, 80 are given in alternate years; Latin 50, 60 will be given in 1921-1922.

See also History 32.

MATHEMATICS

Major: Mathematics 30, 40, 50, 60, and six hours from 51, 61, 70, 80
 Minor: Mathematics 21, 30, 40, and three hours from 50, 51, 61, 70, 80

10. Trigonometry. Messrs Pride and Graham.

First term

3 credits

20. Solid Geometry. Messrs Pride and Graham.

Second term

3 credits

11. Advanced Algebra. Mr. Graham.

First term

3 credits

21. Analytic Geometry. Prerequisite: Mathematics 10 or entrance trigonometry. Mr. Graham.

Second term

3 credits

30. Calculus. Prerequisite: Mathematics 21. Professor Edmondson, Assistant Professor Thorne, and Mr. Pride.

First term

3 credits

40. Calculus. Prerequisite: Mathematics 30. Continuation of Mathematics 30. Professor Edmondson, Assistant Professor Thorne, and Mr. Pride.

Second term

3 credits

50. Differential Equations. Prerequisite: Mathematics 40. Assistant Professor Thorne.

First term

3 credits

60. Advanced Calculus. Prerequisite: Mathematics 40. Assistant Professor Thorne.

Second term

3 credits

51. Theory of Equations. Prerequisite: Mathematics 40. Professor Edmondson.

First term

3 credits

61. Advanced Plane Analytic Geometry. Prerequisite: Mathematics 40. Professor Edmondson.

Second term

3 credits

[70. Solid Analytic Geometry. Prerequisite: Mathematics 40. Professor Edmondson. First term, 3 credits.]

[80. Projective Geometry. Professor Edmondson. Second term, 3 credits.]

NOTE: Mathematics 51, 61 and 70, 80 are given in alternate years; Mathematics 51 and 61 will be given in 1921-1922.

Freshmen presenting
for entrance:

must take:

Mathematics A,C	Mathematics 10, and 20 or 21
Mathematics A,C,D	Mathematics 10 and 21
Mathematics A,C,E	Mathematics 11, and 20 or 21
Mathematics A,C,D,E	Mathematics 11 and 21

MILITARY SCIENCE AND TACTICS

Military Training 10-20 and 30-40 are required of all able-bodied students. These subjects compose what is termed the basic course. The student devotes three hours a week during his freshman and sophomore years to this progressive training in military fundamentals of both a practical and theoretical nature, with a view to developing leadership. The physical development of the student is considered of the first importance and a large portion of the time during seasonable weather is devoted to open air physical drill, mass athletics, and games. Aside from their military value, these courses provide training for each student in some form of athletics.

The advanced course is a two year course beginning with the junior year. The student must devote five hours per week to military subjects. Certain courses are required but considerable choice is allowed the student so as to best combine the work with his schedule. The professor of military science and tactics will assist the student at all times properly to arrange his military work. All changes bearing on military requirements can be made only with his consent.

The advanced course is open to those juniors who have shown by their preliminary training sufficient merit to indicate their eligibility for a reserve commission upon graduation. A junior who elects to take this course and is accepted thereby makes the completion of the course a prerequisite for graduation. He is appointed a cadet-officer and receives from the government \$150.00 a year. His uniform, equipment, and military textbooks are furnished free. He attends one summer camp of six weeks duration at no expense to himself.

10-20. **Military Training for Freshmen.** Introduction to the profession of arms. Military art, practical and theoretical. Military obligations of citizenship. Essentials of discipline. Personal hygiene and efficiency. Physical drill and athletics. Captain Hathaway, First Lieutenant Bringham, and assistants.

First and second terms

1 credit each term

30-40. **Military Training for Sophomores.**

First and second terms

1 credit each term

50-60. **Military Training for Juniors.** Duties consistent with rank as cadet officers in connection with the practical and theoretical work laid down for the unit.

First and second terms

1 or 2 credits each term

51-61. **Cadet Officers' School for Juniors.** Schooling in the infantry drill regulations, and field service regulations. Minor tactics. Leading platoons and small combat groups. Army paper work. Map maneuvers and sand table instructions. Lectures on discipline, military courtesy, military hygiene, customs of the service.

First and second terms

1 credit each term

70-80. **Military Training for Seniors.**

First and second terms

1 or 2 credits each term

71-81. **Cadet Officers' School for Seniors.** Tactical problems. Map maneuvers. Musketry. Court martial proceedings. Lectures on modern warfare (relations between all arms of the service, brief survey on use of artillery, gas, grenades, and airplanes in the World War); principles of teaching; leadership, and psychology of handling men. Property accountability. Methods of obtaining supplies and equipment.

First and second terms

1 credit each term

MUSIC

30-40. **Chorus Singing.** Training in sight-singing, rudiments of voice production, choral style, methods of directing a chorus. As much actual ensemble singing as the proportions of the class admits. Prerequisite: ability to sing simple melodies correctly. Two hours to count as one. Mr. Wright.

First and second terms

1 credit each term

50-60. Appreciation of Music. A study of music from the listener's standpoint; standards of criticism; elements of musical structure; study of composers and their style, covering the classic, romantic, and post-romantic periods. No technical knowledge of music is required. Mr. Wright.

First and second terms

2 credits each term

51-61. Harmony and Ear-Training (Elementary). Scale-formation, intervals, triads and their inversions, seventh-chords, etc. Rudimentary musical dictation. A knowledge of musical notation is a prerequisite for this course. Mr. Wright.

First and second terms

2 credits each term

71-81. Advanced Harmony. Prerequisite: Music 51-61 or equivalent. Secondary seventh and ninth chords, non-harmonic tones and embellishments. Harmonic dictation. Some consideration of simple counterpoint. Mr. Wright.

First and second terms

2 credits each term

PHILOSOPHY

Major: 30, 40, 50, 60, 70, 80, or 72, 82

Minor: 30, 40, 50, 60

30. Psychology, Descriptive and Explanatory. One lecture and two recitations. Professor Shaw and Dr. Veazie.

First term

3 credits

40. Logic and Introduction to Theory of Knowledge. One lecture and two recitations. Professor Shaw and Dr. Veazie.

Second term

3 credits

50. Ethics. Prerequisites: Philosophy 30, 40. A critical view of hedonism and rigorism followed by the development of a humanistic view of life. Professor Shaw.

First term

3 credits

60. Philosophy of Religion. Prerequisites: Philosophy 30, 40. A study of the psychological essence and ethical character of religion. Professor Shaw.

Second term

3 credits

51. Advanced Psychology. Prerequisite: Philosophy 30. Special topics. Dr. Veazie.

First term

3 credits

61. Advanced Logic. Prerequisite: Philosophy 40. Types of modern logical theory including the logic of mathematics. Dr. Veazie.

First term

3 credits

[70. History of Ancient Philosophy. Prerequisites: Philosophy 30, 40, 50, 60. First term, 3 credits. To be given in 1922-1923.]

[80. History of Modern Philosophy. Prerequisites: Philosophy 30, 40, 50, 60. Second term, 3 credits. To be given in 1922-1923.]

Second term

3 credits

72. Esthetics. Prerequisites: Philosophy 30, 40, 50, 60. The philosophical principles of the fine arts, and the grounds of esthetic judgment. Professor Shaw.

First term

3 credits

82. Philosophy of Individualism. Prerequisites: Philosophy 30, 40, 50, 60. The esthetic, ethical, and religious phases of individualism. Professor Shaw.

Second term

3 credits

73. Contemporary Philosophy. Prerequisites: Philosophy 30, 40, 50, 60. Idealism and vitalism. Professor Shaw.

First term

3 credits

83. Contemporary Philosophy. Prerequisites: Philosophy 30, 40, 50, 60. Pragmatism and neo-realism. Professor Shaw.

Second term

3 credits

PHYSICAL TRAINING

For freshmen and sophomores who by reason of non-citizenship, membership in the Naval Reserve, physical disqualification, etc., are not eligible for membership in the Reserve Officers' Training Corps.

10-20. Physical Training. Three hours weekly. For freshmen. Messrs. Cann and Wall.

First and second terms

1 credit each term

30-40. Physical Training. For sophomores. Messrs. Cann and Wall.

First and second terms

1 credit each term

PHYSICS

Major: For students prepared in physics upon entrance. Physics 11-21, and in addition four courses from Physics 50-60, 51, 61, 53-63, 72-82. For others, Physics 50-60 and in addition four courses from 51, 61, 53-63, 72-82.

Minor: For students prepared in physics upon entrance, Physics, 11-21 and in addition two courses from Physics 50-60, 51, 61, 53-63, 72-82. For others, Physics 50-60, and in addition two courses from 51, 61, 53-63, 72-82.

Students desiring to specialize in physics are advised to take Physics 10-20 or 11-21 in the freshman or sophomore year, to be followed the next year by Physics 50-60. One or more courses each during the last two years should be chosen from Physics 51-61, 53-63, 70-80, and 72-82.

10-20. Introductory General Physics. Introductory course in physics for students not previously prepared in the subject. It is intended especially for students not specializing in science. It may, however, serve as a basis for further work in physics in which case it should be followed by Physics 50-60. Lectures, recitations, and laboratory work. Mr. Lynch.

First and second terms

3 credits each term

11-21. General Physics. Prerequisite: Entrance physics. A systematic study of the principles of physics based upon the knowledge of the subject gained in high school. Two lectures, one recitation, and one laboratory period of two hours weekly. February-September freshmen may, if they satisfy the instructor that they have exceptional ability or preparation be allowed to enter course 21 without previously having taken course 11. Assistant Professor Loomis.

First and second terms

3 credits each term

31-41. General Physics. Designed to meet the requirements in physics of medical preparatory students. A detailed study of the facts and principles of elementary physics. One lecture, two recitations, and one laboratory period of two hours weekly. Assistant Professor Hobbie, Mr. Jahelka.

First and second terms

4 credits each term

[34-44. Mechanics. Prerequisites: Physics 10, 20 or 11-21 and Mathematics 30-40 which may be taken concurrently. 6 credits. To be given in 1922-1923.]

50-60. **Physical Measurements.** Prerequisites: Physics 10-20, or 11-21. Mathematics 30-40 must precede this course or be taken simultaneously with it. Laboratory exercises of an advanced grade in mechanics, heat, light, and electricity. Graphical methods and precision study. Two laboratory periods of three hours each and one hour of theory of precision of measurements and graphical methods weekly. Professor Hubbard, Mr. Lynch.

First and second terms

3 credits each term

51. **Theory of Heat and Thermodynamics.** Prerequisites: Physics 10-20 or 11-21, and Mathematics 30-40. Physics 50 should precede this course or be taken simultaneously with it unless exception be permitted by the instructor. Expansion, calorimetry, mechanical equivalent, conduction, kinetic theory, change of state, radiation, thermodynamics. Lectures. Professor Hubbard.

First term

3 credits

61. **Physical Optics.** Prerequisites: Physics 10-20 or 11-21 and Mathematics 30-40. Students are advised to take Physics 60 before taking this course or simultaneously with it. Reflection, refraction, dispersion, interference, diffraction, polarization, absorption. Lectures and demonstrations. Assistant Professor Hobbie.

Second term

3 credits

53-63. **Electronic Phenomena.** Prerequisites as in Physics 34-44. Conduction of electricity through gases, emission from hot bodies, cathode rays, radioactivity, X rays and crystal structure, quanta, line spectra and atomic structure, photoelectricity. Assistant Professor Loomis.

First and second terms

3 credits each term

[70-80. **Special Problems. Advanced Physical Measurements.** To be given in 1922-1923.]

72-82. **Electricity and Magnetism.** Prerequisites as in Physics 34-44. Assistant Professor Loomis.

First and second terms

3 credits each term

POLITICAL SCIENCE

Minor: Political Science 50, 60, 70, 80.

50. **American Government.** Federal and state.

First term

3 credits

60. **Governments of Modern Europe.** Prerequisite: Political Science 50.

Second term

3 credits

70. Municipal Government. Prerequisites: Political Science 50, 60.

First term *3 credits*

80. International Law. Prerequisite: Political Science 50, 60.
Second term *3 credits*

PUBLIC SPEAKING

Minor: Public Speaking 30, 40 and eight additional credits

(Public Speaking 10-20 or 12-22 is prerequisite for all subsequent work in this department.)

10-20. Oral Interpretation. Interpretation of selected masterpieces of oratory, with special attention to the use and control of breath, voice production and placement, enunciation, carriage, and gesture. Messrs. Collins and Borden.

First and second terms *1 credit each term*

NOTE: On the basis of Public Speaking 10-20, students are made eligible for the Macdonald prize contest in declamation. (See p. 28.)

12-22. Oral Reading (Medical Preparatory). The object of this course is, primarily, to train the voice and to adapt it to the work of oral reading. Messrs. Collins and Borden.

First and second terms *1 credit each term*

30-40. Oral English. Designed for students who desire fluency in oral expression. The following aspects of such work are emphasized:

Constructive: What to talk about: interest as a basis of self-expression; the utilization of newspapers and periodicals as sources of ready material; cultivation of clear thinking.

Corrective: Rhetorical errors; faulty enunciation; self-consciousness; mannerisms; habits of controversy. Assistant Professor Briggs.

First and second terms *2 credits each term*

NOTE: Public Speaking 30-40 is elective for sophomores; members of the junior and senior classes to be admitted by consent of the instructor.

50-60. Public Address. An intensive study of the rhetorical and psychological principles underlying the structure of various forms of public address, with special emphasis on the oration as a literary type; the second term work includes training in platform delivery of orations, and practice in other forms of public address. Assistant Professor Briggs.

First and second terms

3 credits each term

NOTE: Public Speaking 50-60 is designed to give students a suitable preparation for the work of the Sandham oratorical contest (see p. 26), and is elective for juniors and seniors; sophomores to be admitted by consent of the instructor.

52-62. Art and Interpretation of the One Act Play. Training in oral interpretation of representative one act plays; production by individual members of the class, with attention to properties, business, setting, and selection of cast. Practice in the writing of one act plays and sketches for informal production. Assistant Professor Briggs.

First and second terms

2 credits each term

70. Argumentation and Debate. Research and composition of briefs and forensics. Argumentative speeches and pleas. Classroom debates on topics of current interest. Mr. Collins.

First term

2 credits

80. Platform Argumentation. Prerequisite: Public Speaking 70. The members of the class will be expected to conduct a forum, open to the students generally, and to the public, the topics to be the subject of the forensic written the first term, together with the subjects used for interclass and intercollegiate debates. Mr. Collins.

Second term

2 credits

NOTE: Public Speaking 70-80 is elective for juniors and seniors; the course is designed to fit students to participate in intercollegiate debating.

72-82. The Oral English of Business. Practice in delivering sales presentations, in making reports and applications to executive officers and administrative boards. Prerequisite, two years of commerce or economics courses. Assistant Professor Briggs and Mr. Borden.

First and second terms

2 credits each term

90. **Speech Clinic.** Attendance upon this clinic is required of all students whose speech defects (stammering, stuttering, lisping, nasality, imperfect enunciation, foreign accent, etc.) make the work of course 10 or 20 impractical; and is to be continued for such a period of time as individual treatment of each case requires. Assistant Professor Briggs, Messrs. Collins and Borden.

NOTE: Professors in other departments than that of public speaking are urged to report for work in this clinic any student above the freshman year whose lapses into the defects listed above make their classroom recitation largely ineffective.

SOCIOLOGY

50. **General Sociology.** A short history of sociological theories is followed by a critical discussion of social evolution, including the development of the most important institutions of society: family, religion, ethics, law, and state.

First term

2 credits

80. **Labor Conditions and Problems.**

Second term

2 credits

SPANISH

Minor: Spanish 30-40, 50-60.

10-20. **Elementary Spanish.** Drill in pronunciation; grammar; oral and written exercises; reading of elementary texts. Assistant Professors Heaton and Vaeth.

First and second terms

3 credits each term

11-21. **Second Year Spanish.** Review of grammar; composition; readings in modern Spanish prose, poetry, and drama. Assistant Professor Vaeth.

First and second terms

3 credits each term

NOTE: Course 11-21 is designed for freshmen who present two years of high school Spanish at entrance.

12-22. **Intermediate Spanish.** Readings in modern Spanish prose, poetry and drama; oral and written composition. Assistant Professor Heaton.

First and second terms

3 credit each term

NOTE: Course 12-22 is designed for freshmen who present three years of high school Spanish at entrance.

30-40. Advanced Spanish. Prerequisite: Spanish 11-21 or 12-22. Advanced composition; oral practice; commercial terminology; rapid reading of Spanish novels. Assistant Professor Heaton.

First and second terms

3 credits each term

50-60. Spanish Literature. Prerequisite: Spanish 30-40. In this course standard Spanish authors will be read with especial attention to their literary value. In the second term, works from the Spanish classics will be read. Continued oral practice. Assistant Professor Heaton.

First and second terms

3 credits each term

New York University

At University Heights

College of Arts and Pure Science

College of Engineering

Summer School

At Washington Square

School of Commerce

School of Pedagogy

School of Law

Washington Square College

Graduate School

School for Teachers of Retail Selling

Summer School

Extramural Division

At Bellevue Hospital

Medical College

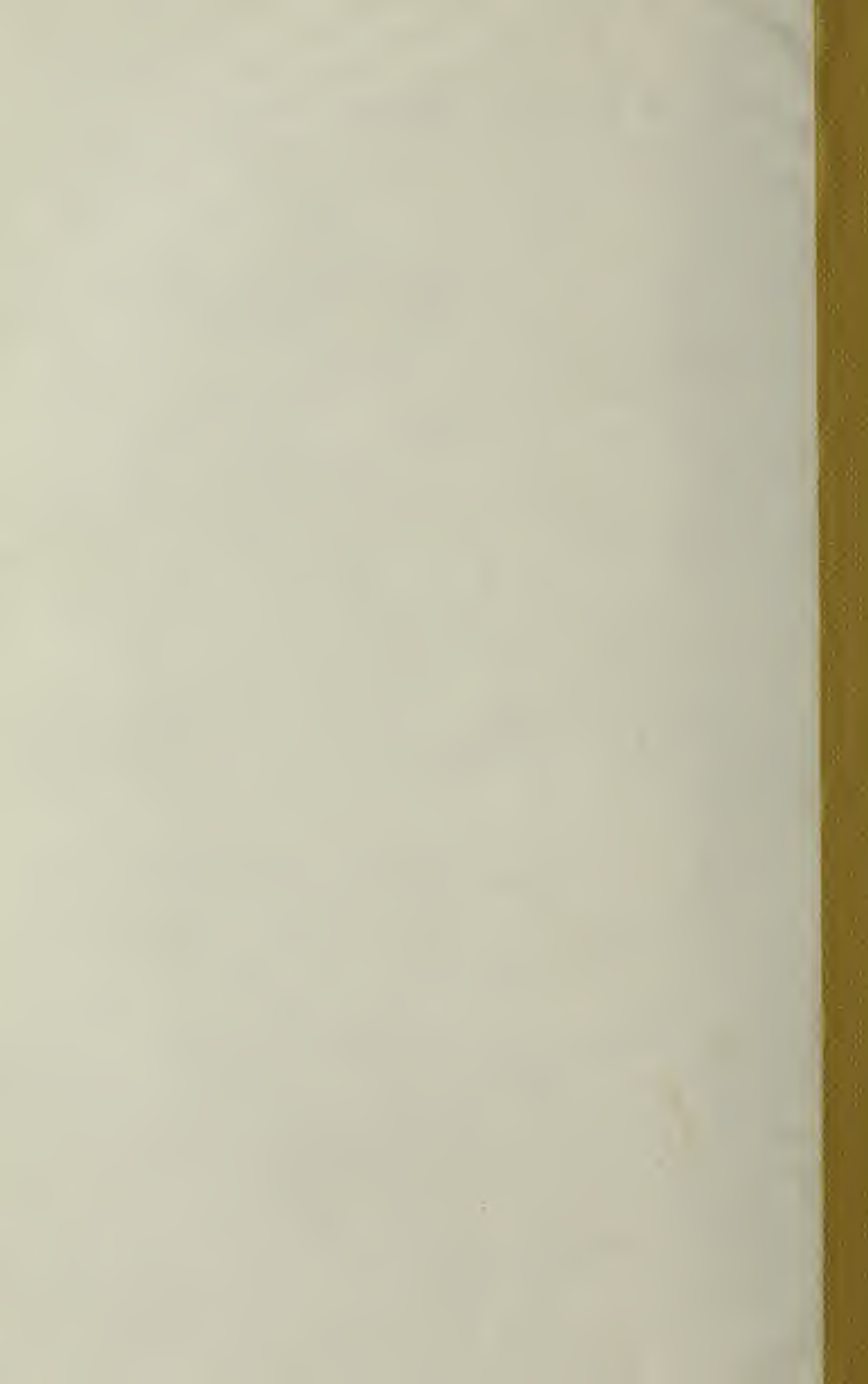
Veterinary College

At Wall Street

Graduate School of Business Administration

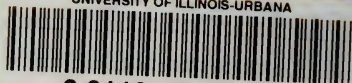
Wall Street Division of the School of Commerce

Summer School





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